Abstract: *An Atom or a Nucleus?*

Evidence is presented for the claim that the "atom" is actually what is currently called the "nucleus". A short presentation of the social consequences is given for ignoring alternatives that seem to be "hidden in plain sight right under our noses". Extensive examples of the suppression of the scientific process are given along with realizations that can fortify us against these problems.

The model of the atom here is based on "non-local physics" instead of the "local physics" that is so well understood in our everyday lives. Exposition of related topics can be found in the following publications:

"Beyond Einstein: non-local physics" (2nd edition or later))
(https://www.researchgate.net/publication/334075961_Beyond_Einstein_non-local_physics_2nd_ed)

"Intuitive Concepts for Atomic and Photon Spin Systems"
(https://www.researchgate.net/publication/338293585_Intuitive_Concepts_for_Atomic_and_Photon_Spin_Systems)

These articles are also published at http://academia.edu

This article may be freely circulated for **noncommercial and educational purposes** provided the copyright notice is included and the author's rights to maintain the document are respected.

An Atom or a Nucleus?

Copyright © 2021 by Brian Fraser
All Rights Reserved

Virtually everyone who is scientifically literate is sure that the atom has a nucleus. The nuclear model of the atom has been in use by the scientific community and the textbook writers for about 110 years now. There are all sorts of "versions" of this model, but few scientists or science teachers would believe that there is anything seriously or obviously wrong with it or that it is not substantially in accord with proven fact. Nuclear physics is regarded as "hard" science and has been exempt from the type of debates that pester other scientific dogma such as human evolution. But suppose you encountered evidence that the atom does not in fact “have” a nucleus? How would you share your findings? If you wrote an article about the topic, do you think anyone would even bother to read it? If you gave a speech, would anyone listen to you? When your colleagues tried to convince you that you are surely out of your mind, that you are placing your career in jeopardy, . . .what would you do?

The Origin of the Nuclear Model of the Atom

The origins of the nuclear model of the atom can be traced to work done by Geiger, Marsden, and Rutherford from about 1909 to 1913. In 1911 Rutherford bombarded extremely thin metal foils with high energy alpha particles and found that most alpha particles went right on through these solid foils as though nothing were there. Less than one per cent of the alpha particles were deflected through small angles ($<3^{o}$) and a much smaller fraction (1:10,000) were deflected through large angles($>90^{o}$). Mathematical analysis showed that such a "scattering" pattern would occur if the mass of the atom were concentrated in a region about 10^{-4} Angstroms in diameter. Rutherford called this tiny massive object a "kernel". It was believed to be positively charged because the statistics of the experimental results were consistent with those calculated for coulombic scattering of the positively charged alpha particles.

Ordinary macroscopic measurements and Avogadro’s number can be used to show that there is a volume associated with the atom, but it is on the order of one to five Angstroms in diameter or about 10,000 times the diameter of Rutherford’s kernel. The experiments showed that this volume is essentially empty. Illustrated on an everyday scale, an extremely thin metal foil would look something like a gigantic array of tiny dots, each dot about 1/10 millimeter in diameter (smaller than the periods at the ends of these sentences) and about a meter away from its neighbors. The whole array would be several football fields deep. If some similar dots were to be shot through this array, most dots would go right on through without hitting another dot or being deflected.

Prior to Rutherford’s experiment an aggregate of atoms was thought to be much like a collection of billiard balls in a shoebox. The balls were solid and impenetrable and were physically in contact with their neighbors (spatial contact; a “local physics” model). Unfortunately, scientists of Rutherford’s time interpreted the results of these experiments in terms of the already existing model. In other words, the balls were now hollow, like ping pong balls, and had a tiny, ultradense kernel in the center. This imagining of a sphere around each kernel had the effect of placing the emptiness of atomic aggregates within the atoms, rather than between the atoms. The atom thus acquired a "nucleus" and modern nuclear theory was born.

Factual and Conceptual Problems with the Nuclear Model

But as nuclear theory developed over the years, it was beset with serious conceptual problems that any high school physics student will point out:

- Why don't the protons violently repel one another, making the nucleus fly apart? How can neutrons, which have a half-life of 11 minutes, be part of a stable structure that lasts for billions of years? Why don't the electrons neutralize the charge on the protons when placed in such extremely close proximity? Why don't the electrons quickly radiate away their energy when moving so fast in such tight orbits? Why don't they quickly spiral into the nucleus?

- Electrically neutral atoms both attract and repel one another, so why assume that the repulsion of the alpha particle originated from electrostatic forces? Couldn't the charge just be extraneous? (note that the alpha particle is really a charged helium *atom*, not a subatomic particle like the neutron)

- A "nuclear force" was invented, *ad hoc*, to stick the parts of the nucleus together and make the neutrons stable. But there is no evidence that the nucleus has any parts to stick together in the first place! (see below)

- Atoms can be expected to have size and shape. Atoms with more mass should have larger size. An iron atom with 56 atomic mass units (a.m.u.) should be larger than a potassium atom of 39 a.m.u. But according to the nuclear model, the iron atom is smaller (7.1 ml/mole for iron versus 45.3 for potassium).

- Both graphite and diamond are made of carbon atoms. In diamond, the centers of the carbon atoms are separated by about 1.54 Angstroms in all three dimensions but in graphite, one of the dimensions changes to 3.4 Angstroms. The nuclear model thus implies that carbon atoms come in assorted sizes and shapes. But experience shows that for a given mass, all the atoms of a chemical element are identical in the ground state. The variability is really *between* atoms, instead of *within* atoms, and can be altered by external influences like pressure and temperature.

The above claim that the nucleus is not made of parts requires some clarification. Atoms can be broken up into protons, neutrons and electrons. Therefore, scientists reason that these are "parts" of the atom and originate in the nucleus. But if I took a sledge hammer and smashed a color TV set all to pieces, have I revealed the actual "parts" by which a manufacturer assembles a TV set, or have I shown merely how a TV set disintegrates? The "atom smashing" experiments only show how the atom breaks up, not how it is put together.

Atom smashers blasted a whole zoo of supposedly "fundamental" particles out of the atom. Yet none of these could *fundamentally* be particles. Supposedly, an electron and a positron are both made of some combination of fundamental particles. Yet an electron and positron can be combined to produce two gamma rays (the so-called "annihilation" reaction). Conversely, two gamma rays can be combined to produce an electron and positron ("pair production"). But by

definition, ***a truly fundamental particle cannot change into something else.*** Obviously, there is a suggestion of something fundamental here, but it is neither radiation nor particles.

Scientists should have concluded that the thing that has all the mass of the atom and which accounts for all the properties of the atom, (including the atomic number) is, quite simply, ***the atom itself***. Instead, they concluded it was a "nucleus" of the atom. Subsequently, they had to divorce the atom from known physical laws and the requirements of common sense. The result was a virtually incomprehensible model of the atom—one that is still being taught in our schools and colleges today.

Instead of concluding that we live in some kind of nightmare universe, physicists should discard the nuclear model of the atom and derive a fact-centered one that meets the requirements of informed common sense and is based on "non-local physics" (*viz*, a fully quantum mechanical model).

Science Corrects Itself Again and Again!

Historically, there is nothing at all unusual about erroneous theories being widely accepted for long periods of time by highly capable scientists. A classic example is the wide acceptance of the Ptolemaic theories of the universe. Ptolemy, as you may recall, was a celebrated second century astronomer, geographer, and mathematician. His encyclopedic work, the *Almagest* was regarded as the ultimate authority on astronomy as late as 1543 A.D. (until Copernicus). He offered proofs that the earth was round, and explained the observed motions of the heavenly bodies with a very intricate combination of deferents, equants, epicycles, and circular orbits. His theories and their subsequent extensions and refinements had all the hallmarks of the truth: they reflected the best of scholarship, they explained all the observational data, and they had survived crucial tests for over a *thousand years.*

Yet his theory was fundamentally wrong. As is now established, the planetary orbits were heliocentric instead of geocentric and the orbits were elliptical instead of circular. There were no deferents or epicycles. As the telescope revealed, Ptolemy's "divine beings" were not perfect or unchangeable; the sun had spots and Venus had phases. Heavenly and earthly phenomena were seen to be of the same basic kind and man was not at the center of the universe. The whole theory collapsed not only because it was incredibly cumbersome and complex, but also because it was based on philosophical reasonings that were demolished by the accumulation of more precise observational data, and the availability of a much simpler explanation.

Can we make similarly huge mistakes today? Absolutely! Not only has human nature not changed, but we have more facts and interpretations available to us today than ever in history. We can make a bigger mess of things now than ever before! That is why scientists themselves warn us not to be complacent:

> "History shows clearly that the advances of science have always been frustrated by the tyrannical influences of certain preconceived notions which were turned into unassailable dogmas. For that reason alone, every serious scientist should periodically make a profound re-examination of his basic principles." (*New Perspectives in Physics*, Louis de Broglie, 1962)

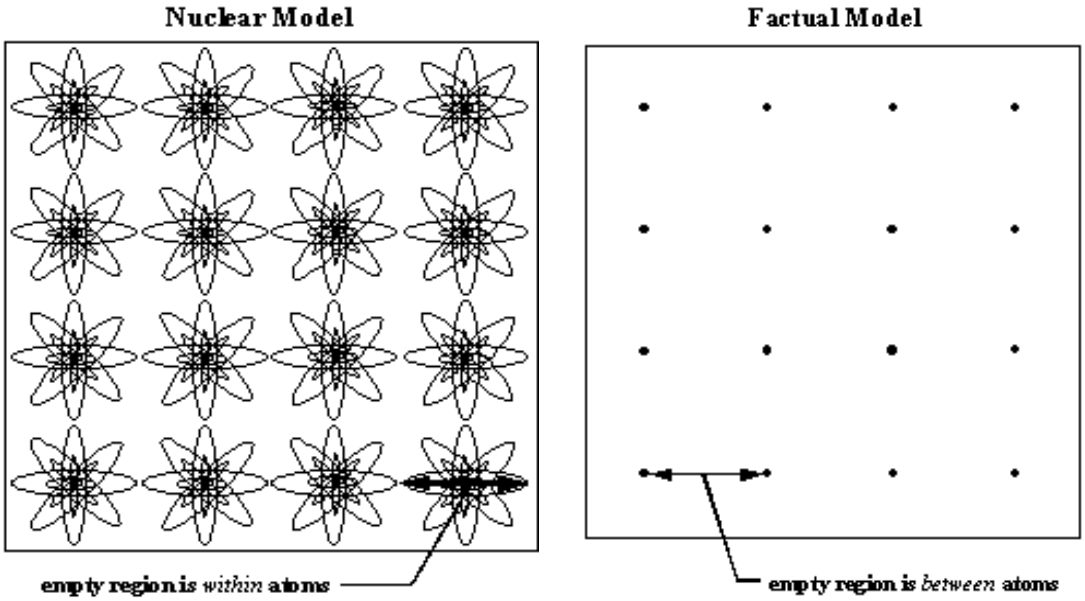
> "It is proper to submit periodically to a very searching examination, principles that we have come to assume without any more discussion." (*The Revolution in Physics*, Louis de Broglie, (1953), p. 237)

"What men of one generation are pleased to regard as satisfactorily settled may be questioned by a succeeding one." (*Understanding Physics Today*, W.H. Watson, (1963), p. 7)

"We are still waiting for a breakthrough in the solid wall of difficulties which prevent us from understanding the very existence of elementary particles, their masses, charges, magnetic moments, and interactions. There is hardly any doubt that when such a breakthrough is achieved, it will involve concepts that will be as different from those of today as today's concepts are different from those of classical physics. . . .

After the thirty fat years in the beginning of the present century, we are now dragging through the lean and infertile years, and looking for better luck in the years to come. . . . In spite of all the efforts of the old-timers . . . theoretical physics has made very little progress during the last three decades, as compared with the three previous decades. . . . Let us hope that in a decade or two, or at least, just before the beginning of the twenty first-century, the present meager years of theoretical physics will come to an end in a burst of entirely new revolutionary ideas similar to those which heralded the beginning of the twentieth century." (*Thirty Years that Shook Physics*, Dr. George Gamow, 1966, pp. 4-5,162-163; 155)

The nuclear model is over 110 years old. Maybe now is time to start over and develop a much better model based on "non-local physics".



The Social Realizations

Discarding a major and widely accepted belief system, such as the nuclear model of the atom, will have important social consequences. A few realizations that will become more apparent are as follows:

1. Beliefs that even careful, ethical scientists hold to be thoroughly proven and completely beyond question can in fact be seriously wrong. Anyone who wants to become free of his own blind spots will have to work diligently to discover plausible alternatives to his own strongly held beliefs. As someone once said, "It is not what we don't know that hurts us. It is what we do know that isn't so."

2. Science is primarily a methodology based on factual data, repeatable experiments, and unequivocally testable hypotheses. *Science is NOT what scientists believe. Reality is not derived from the beliefs of people.* Experts can give us valuable insights, but they can also mislead us.

3. Errors are often made at key, fundamental points. The large body of "knowledge" carefully derived from such erroneous foundations will also be faulty. Nevertheless, scientists can offer "convincing proofs" for everything beyond the foundation.

4. The truth is out there, but the people who know it may be hard to find, even though they are willing to be found.

5. The educational system, the popular press, social media and especially the scientific community, have not served adequately in describing factual information and in pointing out alternative interpretations of that information. Instead, the focus is on personal and institutional reputation and esteem. What would happen to a university faculty member if he seriously proposed that the atom does not "have" a nucleus? What would happen if he based, and successfully defended, his Ph. D. thesis on “cold fusion”. What would happen to any university professor who wrote an article titled, “UFO Propulsion Physics” ? I am sure the dean would say something like: “We can’t publish stuff like that! People would think we are doing junk science! We would not be able to get grants! Our science departments would be destroyed. Our alumni would not think well of us. We would be ridiculed in the publications.” etc., etc.,

6. If it is possible to prove that the atom does not "have" a nucleus, then it may be entirely possible to conceive of other things that are also thought to be impossible. The key to doing these impossible things rests more upon personal perception of primary facts rather than special problem-solving ability. One must also possess the ability to tolerate the mental chaos and uncertainty that occurs when questioning the validity of everything he thought he knew.

7. School boards that insist on teaching only "truth" must first decide what it is, and thereby remove the welcome mat for discussion of plausible alternatives. Truth is found by a great deal of persistent seeking and deep digging. It is not something that comes down out of heaven from God in a pop-top can, all prepared and pasteurized like a pre-canned belief system, ready to be consumed by ignorant students who are never supposed to question what they are consuming. *If it cannot be questioned or examined it is indoctrination, not science.*

These lessons are especially important for us today. The year 2020 saw the COVID19 pandemic. Various professionals in the medical community gave us valuable information on how to mitigate the consequences of this catastrophe, but it was ignored by governments, official health organizations, and mass media. The result was suppression of alternative treatments, trillions of dollars of tragic economic devastation, millions of people becoming unemployed, and hundreds of thousands of needless deaths (including vaccine deaths, aka “death by coincidence”). Institutional “junk behavior” was widespread with rabid, acrimonious and arbitrary censorship by mass media bigots, misrepresentations of “the science”, phony statistics, character assassinations, and abusive police actions. An especially alarming oddity also emerged, namely that one dare not question the efficacy, safety or necessity of vaccines in the U.S.A., where freedom of expression is a Constitutionally protected right.

Comparison of the nuclear model with a factual model of the atom

The Nuclear Model	The Atomic (factual) Model
1. The atom is made of discrete particles: chiefly protons, neutrons, and electrons. The fundamental substance is intuitively incomprehensible.	**1. The atom is made of the Moseley substance. The Rydberg frequency and equations like E=cB and E=mc2 suggest that the fundamental substance is a ratio of space and time. The periodicity of the Periodic Table suggests that the internal structure of the atom is very simple and is based on squares of four integers: 1, 2, 3, 4.**
2. We know the atom is made of parts because it breaks up into all sorts of particles during atom smashing experiments.	**2. The atom smashing experiments show how the atom breaks up, not how it is put together. Ducks are not made of quacks just because quacks come out of ducks. Alpha particles, beta, and gamma rays are also common disintegration products, but physicists do not regard *them* as "parts" of the atom.**
3. Protons are parts of the nucleus.	**3. Protons would repel each other violently and so cannot be part of a stable structure like the 'nucleus'.**
4. Neutrons are parts of the nucleus.	**4. Neutrons have a half-life of about 12 minutes and cannot be part of a stable structure lasting for billions of years.**
5. Electrons are parts of atoms.	**5. Electrons occur in matter but are not part of the atomic material. If electrons were orbiting a charged nucleus, they would quickly radiate away their energy and also neutralize the positive charge on the nucleus.**
6. A nuclear force holds the parts together and makes the protons, neutrons, and electrons stable.	**6. Because the atom is not made of parts, no nuclear "glue" is necessary. The nuclear force is just another assumption needed to hold the other assumptions together.**
7. The atom is made of some kind of fundamental particles.	**7. Both particles and radiation are interconvertible and hence neither can be truly fundamental.**
8. The size of the atom does not have a simple, regular relation to atomic weight.	**8. The size of the atom (in the ground state) is directly proportional to the cube root of the mass number.**
9. The empty region in an aggregate of atoms is mostly *within* the atoms.	**9. The empty region in an aggregate of atoms is entirely *between* atoms. The internal structure of an aggregate (like gold foil) is "non-local". The atoms are not touching each other as in "local physics". They are separated by an "interatomic distance", the fundamental nature of which is not understood by mainstream science.**
10. Atoms can have variable shapes and sizes as required, for example, in the diamond and graphite forms of carbon.	**10. Atomic size and shape (in the ground state) do not vary. Interatomic spacing may vary under external influences like temperature and pressure.**
11. Aggregates of atoms are held together by electrical forces.	**11. Atoms are factually electrically neutral. Yet neutral atoms both attract and repel one another. Atoms in an ordinary iron bar, for example, strongly resist forces of tension and compression.**
12. Atoms exist only as abstract mathematical entities in multidimensional wave space.	**12. Atoms really *do* exist objectively. The nuclear model is unreal because the postulates used to construct it have been divorced from real physical laws. Nuclear theory says "the facts do not apply here."**

Conclusion:

The nuclear model of the atom needs to be replaced with one that is solidly factual and much more conceptually facilitative. The social obstacles to this paradigm shift are very serious and also need thoughtful and vigorous attention.

The atom is apparently composed of space/time ratios that take the form of *intrinsic spin* systems. For more on this theme see:

"Beyond Einstein: non-local physics" (2nd edition or later))
(https://www.researchgate.net/publication/334075961_Beyond_Einstein_non-local_physics_2nd_ed)

"Intuitive Concepts for Atomic and Photon Spin Systems"
(https://www.researchgate.net/publication/338293585_Intuitive_Concepts_for_Atomic_and_Photon_Spin_Systems)

These articles are also published at http://academia.edu

Books and links:

"An Atom or a Nucleus?" is just one example of new and very consequential concepts in physics that are concealed in plain sight, placed right under our noses, and rejected outright by mainstream scientists. Why are we so blind that we cannot see? Why aren't such ideas published in peer reviewed journals and debated? Why are our institutions so dysfunctional? What effect do these intellectual power drains have on our society? You may find some of the answers in the following references:

Prematurity in Scientific Discovery, edited by Ernest B. Hook (2002)

The Structure of Scientific Revolutions, Thomas S. Kuhn (4th ed. 2012)
https://en.wikipedia.org/wiki/The_Structure_of_Scientific_Revolutions

"Resistance by scientists to scientific discovery", Bernhard Barber, *Science*, 1961 Sep 1;134:596-602.
https://science.sciencemag.org/content/134/3479/596

Exceeding Our Grasp, P. Kyle Stanfords (2010)

The Case Against the Nuclear Atom, Dewey B. Larson (1963)

"Creativity in Science and Engineering", Ronald B. Standler (1998)
http://www.rbs0.com/create.htm

"Ignaz Semmelweis" https://en.wikipedia.org/wiki/Ignaz_Semmelweis

"Continental Drift",
https://en.wikipedia.org/wiki/Continental_drift#Rejection_of_Wegener's_theory,_1910s%E2%80%931950s

"Ohm's law" https://en.wikipedia.org/wiki/Ohm%27s_law#History

"The Suppression of Inconvenient Facts in Physics", Rochus Börner, Ph.D., 2004.
https://ancientamnesia.com/the-suppression-of-inconvenient-facts-in-physics/

"NASA Breakthrough Propulsion Physics Program", Marc G. Millis
https://ntrs.nasa.gov/api/citations/19980201240/downloads/19980201240.pdf (Section 4.4, 5.1)
http://www.bibliotecapleyades.net/ciencia/secret_projects/project301.htm

"Eight Traits of the Disinformationalist", H. Michael Sweeney
https://3dem.wordpress.com/2007/11/29/eight-traits-of-the-disinformationalist/

http://www.wakingtimes.com/2017/04/17/25-rules-disinformation/

"Scientific misconduct" http://en.wikipedia.org/wiki/Scientific_misconduct

https://childrenshealthdefense.org/defender/wsj-facebook-censorship-scientific-debate/

"Fallacies" The Writing Center, University of North Carolina at Chapel Hill
https://writingcenter.unc.edu/tips-and-tools/fallacies/ (excellent article)

"Explained: Sigma How do you know when a new finding is significant? The sigma value can tell you — but watch out for dead fish", David L. Chandler, MIT News Office, February 9, 2012 http://news.mit.edu/2012/explained-sigma-0209

https://www.researchgate.net/publication/269634928_What_Everyone_Should_Know_about_Statistical_Correlation

Instructors, here is a riddle for your students:

Imagine three physicists standing in front of the class. Each makes a statement:

> Physicist A: "The atom does not have a nucleus."
>
> Physicist B: "A tiny little dot exploded and became the Universe as we know it."
>
> Physicist C: "There are multiple universes with 11 dimensions. We inhabit only the "current incarnation" and only for an instant."

Then ask your students: '"Which of these statements is LEAST likely to be true?"

If the students answer B or C, then you can see that students are having trouble believing that modern physics is credible and relevant.

If they answer A, then draw a diagram on the board depicting nuclei with shells. Ask them to change only ONE concept. Suppose the "volume within the atom" is changed to be the "volume between atoms." Erase only the shells. Then ask them, What does that do to atomic theory? And does it affect your choice of A, B, or C? (The answer is not as important as is identifying the issues.)

Also, have them review the credibility criteria that NASA proposed for the Breakthrough Propulsion Physics program.

https://ntrs.nasa.gov/api/citations/19980201240/downloads/19980201240.pdf (Section 4.4, 5.1)
http://www.bibliotecapleyades.net/ciencia/secret_projects/project301.htm

Examples of suppression of the scientific process

From the book *Seeing Red: Redshifts, Cosmology and Academic Science* (Halton Arp, astronomer 1998):

"The current beliefs are the crowning achievement of our research and learning institutions, and if they are so completely wrong—and have been for so long in the face of glaring evidence to the contrary—then we must consider whether there has been an overwhelming breakdown in our academic system. If so, we must find out what went wrong and whether it is possible to fix it." (p. 2)

"Scientists, particularly at the most prestigious institutions, regularly suppress and ridicule findings which contradict their current theories and assumptions. . . . astronomers now feel compelled to fit the observations to the theory and not *vice versa*" (p. 12)

". . . it is a clear case of falsifying data for personal advantage—a violation of the primary ethic of science." (p. 15)

"As we will have occasion to mention a number of times during this book, amateurs have a much better grasp of the realities of astronomy because they really *look* at pictures of galaxies and stars. Professionals start out with a theory and only see those details which can be interpreted in terms of that theory." (p. 23)

"The reason we have not had any useful progress is that astronomers don't even look at their own observations." (p. 282; see also 135, 239, 246)

"I thought it would be routine to publish in the journal which was carrying most of the European X-ray results of archival value. How wrong I was! The referee's report came back accusing me of "manipulating the data" and trying to claim an association of quasars with galaxies, which has "long ago been disproved." The editor forwarded these comments and rejected the paper on the ground that he saw no need to reopen the debate. The extraordinary aspect was that four papers in addition to my own had just appeared in the same journal giving strong additional evidence for just such associations! The figures appear here [in Arp's book] for the first time, and the tabular X-ray data is still unpublished." (p. 47)

"I gloomily came to the ironic conclusion that *if you take a highly intelligent person and give them the best possible, elite education, then you will most likely wind up with an academic who is completely impervious to reality*." (p. 131)

"Jubilation that the paper was finally published has to be tempered with the cold experience that much fewer than 1/3 of the referees in this field are objective." (p. 83)

"Refereeing, or "peer review" as it is rather pompously called, is now unworkable. It has increasingly shown that it lets in the bad papers and excludes the good ones, exactly the opposite of what it is supposed to do. . . . Many reports read like an emotional session of psychotherapy—manipulative, sly, insulting, arrogant and above all *angry*. A sample of these should be published because it would allow people to evaluate the objectivity of the information they are being allowed to read. Their best use would be to enliven the ends of controversial articles with short replies from the authors." (p. 270, 271; see also 47, 83, 19, 101, 244)

"*Astrophysical Journal Letters* is the normal journal for publishing new observations from the Hubble Space Telescope. The telescope cost billions of dollars of public funds. The vast majority of page charges which pay for the publication of the journal come from government supported contracts. The overriding, first directive of the editor is to communicate important new astronomical results. If the editorial process violates its primary responsibility, it misuses public funds." (p. 175)

"*Everyone must make up their own mind on the basis of the evidence and the experts should not be allowed to control the presentation.*" (p. 274)

"The mission of academia should be to explore—not to perpetuate myth and superstition." (p. 257

"Investigative journalism so far as science is concerned is clearly dead in the water." (p. 260)

". . . it is well justified today that people view institutional claims with skepticism and even hostility. And it is important to always keep in mind who have the vested interests and what they have to gain. (p. 261)

"When I was faced with a directive to renounce observations of new phenomena, I chose early retirement." (p. 275)

"If the data is hijacked at the last moment by a group with a need to control beliefs, the whole enterprise is a failure. (p. 275)

"One lesson from all of this, which seems obvious, is that scientists have to be absolutely honest and straightforward with the public, the people who are paying their salary. Their primary moral obligation is to report the facts and make available a range of interpretations. They have no paternalistic excuse to guard the public from "misunderstandings" or "alarm." If they cannot explain a matter so that a non-specialist can understand it, they don't understand it themselves and they should not cover up this important situation." (p. 266)

"In questions of science the authority of a thousand is
not worth the humble reasoning of a single individual."
--Galileo

———

"Any contradiction between a particular scientific notion and the facts of experience will be explained by other scientific notions; there is a ready reserve of possible scientific hypotheses available to explain any conceivable event. Secured by its circularity and defended further by its epicyclical reserves, science may deny, or at least cast aside as of no scientific interest, whole ranges of experience which to the unscientific mind appear both massive and vital. . . . Scientists were satisfied with speaking of the 'anomalies of strong electrolytes', without doubting for a moment their behavior was in fact governed by the law that they failed to obey. . . . Contradictions to current scientific conceptions are often disposed of by calling them 'anomalies'; this is the handiest assumption in the epicyclical reserve of any theory." (*Personal Knowledge*, Michael Polanyi, 1962, p. 293)

———

'Science today is locked into paradigms. Every avenue is blocked by beliefs that are wrong, and if you try to get anything published by a journal today, you will run up against a paradigm, and the editors will turn it down.' (A quote from Sir Fred Hoyle in Horgan, J., 1995, Profile: Fred Hoyle. Scientific American 272(3):24–25.)

———

"But in current mainstream science, the opposite occurs with disturbing regularity. Anomalous evidence is first ignored, then ridiculed, and if that fails, its author attacked. Scientific conferences will not admit it to be presented, scientific journals will refuse to publish it, and fellow scientists know better than to express solidarity with an unorthodox colleague. In today's scientific world, the cards are just stacked too heavily against true scientific breakthroughs. Too many careers are at stake, too many vested interests are involved for any truly revolutionary advancement in science to take place any more. All too often, scientific truth is determined by the authority of experts and textbooks, not by logic and reason." ("The Suppression of Inconvenient Facts in Physics", Rochus Börner, Ph.D., (2004) http://www.world-mysteries.com/sci_supr.htm http://inthesenewtimes.com/2010/10/05/the-suppression-of-inconvenient-facts-in-physics/

———

". . . medical, economic, and business-management researchers themselves have studied the reliability of published research and concluded that most of it is flawed, exaggerated, or just plain wrong. No wonder: scientists and other top-shelf experts are often highly biased, shockingly sloppy, and in a surprising number of cases outright frauds—and I'm relying on formal studies of these problems when I make these claims. Medical researchers, for example, have noted that about two thirds of the findings published in top medical journals end up being contradicted. . . . When economists looked at a range of papers published in major economics journals a while ago, they estimated that the wrongness rate of the findings was essentially 100 percent. . . . Surveys of these fields reveal that fraud, careerism, mismeasurement, suppression of data, lousy analysis, politics, poor self-policing, and many other serious shortcomings are fairly widespread even among the most respected researchers and institutions." ("The Case Against Experts Why advice from

the pros can leave us hanging.", David H. Freedman, June 24, 2010, http://www.newsweek.com/2010/06/24/the-case-against-experts.html)

———

"First, the facts show, I think beyond question, that the traditional proud claim of Science that it acknowledges the absolute authority of experience (i.e. observation and experiment) and reason over all theories, hypotheses, prejudices, expectations or probabilities, however apparently firmly established, can no longer be upheld. The devotion to truth at all costs has gradually given place — largely unconsciously, I believe, but still undeniably — to the blind pursuit of the superficially plausible; the direction towards the most seductive, in which advance has been easiest, has been taken without regard to preservation of contact with the base, which is the truth of experience and reason; the verdict of those authorities falls on deaf ears . . . . mathematics has been transformed from the servant of experience into its master, and instead of enabling the full implications and potentialities of the facts of experience to be realised and amplified, it has been held necessarily to symbolise truths which are in fact) sheer impossibilities but are presented to the layman as discoveries) which, though they appear to him absurd, are nevertheless true because mathematical inventions, which he cannot understand require them. The situation is precisely equivalent to that in which the zoologist assured the astonished spectator of the giraffe that if he understood anatomy he would know that such a creature was impossible — except that, in physical science, the layman usually believes what he is told and, unless he is enlightened in time, will be the victim of the consequences. . . . It is ironical that, in the very field in which Science has claimed superiority to Theology, for example — in the abandoning of dogma and the granting of absolute freedom to criticism — the positions are now reversed. Science will not tolerate criticism of special relativity, while Theology talks freely about the death of God, religionless Christianity, and so on (on which I make no comment whatever). Unless scientists can be awakened to the situation into which they have lapsed, the future of science and civilisation is black indeed."(*Science At the Crossroads* ,Herbert Dingle (1972) p.4-5 http://blog.hasslberger.com/Dingle_SCIENCE_at_the_Crossroads.pdf)

———

"This book is dedicated to a large audience of researchers: scientists, engineers, professors and students wise enough to keep a critical look whenever confronted to the chilling dogmas of contemporary physics. . . . After decades of work, the author is intimately convinced that we have not even began to touch upon the surface of things, nor even began to unveil the true secrets of Nature. To put it more plainly: everything has to be started all over again. Indeed, a number of well known physicists criticized certain aspects of contemporary physics. The great majority of their criticisms has systematically been silenced by some sort of censorship system empowered, if not institutionalized, within the scientific community itself. This statement may surprise those of the readers who still ignore how the system of anonymous referees, as it is being used by scientific journal and magazines, operates and negates every attempt to dismiss or criticise today's mainstream physics and models." (*Advanced Electromagnetism and Vacuum Physics*, Patrick Cornille (2003) p. 1)

———

"American and British history is riddled with examples of valid research and inventions which have been suppressed and derogated by the conventional science community. This has been of great cost to society and to individual scientists. Rather than furthering the pursuit of new scientific frontiers, the structure of British and American scientific institutions leads to conformity and furthers consensus-seeking." ("Cognitive Processes and the Suppression of Sound Scientific Ideas" J. Sacherman (1997) http://amasci.com/supress1.html)

———

"For several centuries, modern science was pretty much a free intellectual market populated by independent entrepreneurs who shared the goal of understanding how the world works. Nowadays it's a corporate enterprise where patents, pay-offs, prestige, and power take priority over getting at the scientific truth, and the powers-that-be have established *knowledge monopolies*." ("Suppression of Science Within Science", Henry Bauer http://www.lewrockwell.com/orig10/bauer1.1.1.html)

———

"Science has seldom lived up to its ideal as an open, disinterested enquiry into nature, as any scientist who has ever tried to publish genuinely new ideas or findings in the 'peer-reviewed' scientific journals will know too well. Nobel Laureate Hans Krebs' discovery of the metabolic cycle that would eventually bear his name was rejected from the journal Nature. . . .

In the course of liberating itself from the Church, the scientific establishment has inherited many of the trappings of fundamentalist religion. There can be but One True Science, and everything else tends to be treated as nonsense or heresy. Within the past 50 years, the suppression of dissent has plumbed new depths, as the scientific establishment is increasingly getting into bed with big business. At first, it was mostly physics and chemistry, now it is pre-eminently biology. And as corporations are growing bigger and more powerful, so the suppression of scientific dissent is becoming more sophisticated, insidious and extensive. As the scientific and the political mainstream have both come to identify with corporate aims, so their established power structures are brought to bear on squashing scientific dissent and engineering consensus." ("The New Thought Police – Suppressing Dissent in Science", Mae-Wan Ho, Jonathan Mathews http://www.psrast.org/thoughtpolice.htm)

———

"The results of this suppression of creativity are not limited to the world of grant-funded research. The same leadership that fosters the status quo in research also affects the classroom. A university education is supposed to teach students how to think critically. However, that goal has been set aside in many of our classrooms, being traded for the less ambitious goal of memorizing facts. Curiously, when the rote memorization is emphasized, creative students are often penalized. Multiple-choice exams are the standard for testing a student's ability to memorize facts, and creative students are usually not adept at guessing what a test writer is thinking. They are much better at solving problems, generating hypotheses, designing protocols, and developing a deep understanding of their discipline—all key aspects of good critical thinkers and professionals in science. By rewarding those students who accept the current facts as gospel, rather than skills that are likely to lead to the creation of knew knowledge, universities are stifling the next generation of scientists." ("Opinion: Academia Suppresses Creativity", Fred Southwick (2012) http://www.the-scientist.com/?articles.view/articleNo/32077/title/Opinion--Academia-Suppresses-Creativity/)

———

"When science's self-correctiveness fails, the cost is enormous because error compounds itself. "Surprising" discoveries are noted, but scientists continue seeking explanations within the frameworks of old models long after those models should have been discarded. This not only leads theoretical science into a deeper and deeper state of crisis, it comes at a significant cost to the taxpayer and is ultimately a betrayal of the public's trust. Models that fail need to be dispelled of, all of the assumptions from which they've arisen must be questioned, and alternatives must be examined, considered and tested." ("Does Science Admit When it's Wrong?", B. Talbott (Nov. 2012) http://www.thunderbolts.info/wp/2012/11/26/does-science-admit-when-its-wrong/

———

"In a new paper to be published in *The Proceedings of The Royal Society A*, a team of researchers, Lachlan J. Gunn, et al., from Australia and France has further investigated this idea, which they call the "paradox of unanimity." "If many independent witnesses unanimously testify to the identity of a suspect of a crime, we assume they cannot all be wrong," coauthor Derek Abbott, a physicist and electronic engineer at The University of Adelaide, Australia, told Phys.org. "Unanimity is often assumed to be reliable. However, it turns out that the probability of a large number of people all agreeing is small, so our confidence in unanimity is ill-founded. This 'paradox of unanimity' shows that often we are far less certain than we think." . . . The researchers demonstrated the paradox in the case of a modern-day police line-up, in which witnesses try to identify the suspect out of a line-up of several people. The researchers showed that, as the group of unanimously agreeing witnesses increases, the chance of them being correct decreases until it is no better than a random guess." "Why too much evidence can be a bad thing" http://phys.org/news/2016-01-evidence-bad.html

———

"An astonishing two-thirds of all biomedical and life-science research publications and research articles that have been retracted from the public domain have been retracted because of fraud." ("An Alarming Two Thirds of All Scientific Publications and Research Retracted Found to Be Fraudulent", Andrew Puhanic (2012)

http://www.theglobalistreport.com/publications-research-articles-retracted-fraud/
http://www.theglobalistreport.com/wp-content/uploads/2012/10/PNAS-2012-Fang-1212247109.pdf

"Study: Fraud growing in scientific research papers", Seth Borenstein (Oct 2012) http://news.yahoo.com/study-fraud-growing-scientific-research-papers-190641079.html

"'Awash in False Findings' Is most scientific research factually distorted? ", Trevor Butterworth (Feb 2013)
http://www.thedailybeast.com/newsweek/2013/02/25/new-research-claims-science-is-awash-in-false-findings.html
http://www.nature.com/news/redefine-misconduct-as-distorted-reporting-1.12411

"FDA: Failure, Deception, Abuse: The Story of an Out-of-Control Government Agency and What It Means for Your Health", Life Extension Foundation (2010) http://www.amazon.com/FDA-Deception-Out-Control-Government/dp/1607660016 "Strong Medicine", *Reader's Digest*, April 2008, p. 118-131http://newstrain.com/2008/10/02/strong-medicine-whats-ailing-the-fda/

"Suppression of dissent in science", Brian Martin (1999) http://www.bmartin.cc/pubs/99rsppp.html

"When "Science" Serves Suppression" http://www.enterprisemission.com/suppression.htm

"Ben Stein Roused By Suppression In Science", Diana deRegnier (2008)
http://www.science20.com/spiritlinks/ben_stein_roused_suppression_science-8408

"The myth of 'settled science'", Charles Krauthammer (2-20-2014) "There is nothing more anti-scientific than the very idea that science is settled, static, impervious to challenge." http://www.washingtonpost.com/opinions/charles-krauthammer-the-myth-of-settled-science/2014/02/20/c1f8d994-9a75-11e3-b931-0204122c514b_story.html

"Peer review could reject breakthrough manuscripts, study shows", Marcia Malory (Dec 23, 2014)
http://phys.org/news/2014-12-peer-breakthrough-manuscripts.html

" '97% Of Climate Scientists Agree' Is 100% Wrong", http://www.forbes.com/sites/alexepstein/2015/01/06/97-of-climate-scientists-agree-is-100-wrong/2/

" "A lot of what is published is incorrect." I'm not allowed to say who made this remark because we were asked to observe Chatham House rules. . . .this symposium—on the reproducibility and reliability of biomedical research, held at the Wellcome Trust in London last week—touched on one of the most sensitive issues in science today: the idea that something has gone fundamentally wrong with one of our greatest human creations."

"The case against science is straightforward: much of the scientific literature, perhaps half, may simply be untrue. Science has taken a turn toward darkness." - (Richard Horton, editor in chief in the April 15th, 2015 edition of Lancet
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60696-1/fulltext
http://www.tumblr.com/search/research%20fraud)

"Eight Traits of the Disinformationalist", H. Michael Sweeney https://3dem.wordpress.com/2007/11/29/eight-traits-of-the-disinformationalist/

Suppression of medical science information

Consider these misleading statements in congressional testimony by CDC official (Dr. Anne Schuchat) about vaccines and autism (below): http://youtu.be/k9XRbjOQDvY?t=72 (censored) https://youtu.be/FkD3k3ZntJ (censored) https://sharylattkisson.com/2015/02/fact-check-anne-schuchats-claim-that-vaccines-cant-cause-brain-damage/
https://needtoknow.news/2019/01/government-expert-witness-confirms-vaccine-can-cause-autism/

Testimony before Senate Committee, Feb. 10, 2015:

Sen. Elizabeth Warren (D-Mass): "Is there any scientific evidence that vaccines cause profound mental disorders?"

Dr. Anne Schuchat, CDC: "No."

Compare that testimony with what follows below:

"CDC Whistle Blower admits MMR Vaccine causes Autism", https://www.youtube.com/watch?v=q62DcaNs_0M (censored)

"CDC Whistleblower Discloses Deception", https://www.youtube.com/watch?v=qxr-cv-JuI8 http://vaxxedthemovie.com/download-the-cdc-autism-mmr-files-released-by-dr-william-thompson/ (dead link)

"Obama Grants Immunity to CDC Whistleblower on Measles Vaccine Link to Autism" , http://healthimpactnews.com/2015/obama-grants-immunity-to-cdc-whistleblower-on-measles-vaccine-link-to-autism/

"Congress hears testimony of CDC scientist admitting cover up of vaccine autism links in black boys" http://www.sott.net/article/299585-Congress-hears-testimony-of-CDC-scientist-admitting-cover-up-of-vaccine-autism-links-in-black-boys http://www.sott.net/article/284578-CDC-vaccine-fraud-340-risk-of-autism-hidden-from-public

"Former science chief: 'MMR fears coming true' ", by Sue Corrigan (29 March 2016) http://www.dailymail.co.uk/health/article-376203/Former-science-chief-MMR-fears-coming-true.html#ixzz45AimGjOx

> "A former Government medical officer responsible for deciding whether medicines are safe has accused the Government of "utterly inexplicable complacency" over the MMR triple vaccine for children. Dr Peter Fletcher, who was Chief Scientific Officer at the Department of Health, said if it is proven that the jab causes autism, "the refusal by governments to evaluate the risks properly will make this one of the greatest scandals in medical history".
>
> He added that after agreeing to be an expert witness on drug-safety trials for parents' lawyers, he had received and studied thousands of documents relating to the case which he believed the public had a right to see. He said he has seen a "steady accumulation of evidence" from scientists worldwide that the measles, mumps and rubella jab is causing brain damage in certain children."

"CDC Admits In Federal Court They Have No Evidence "Vaccines Don't Cause Autism" " By Joe Martino (March 9, 2020) https://www.lewrockwell.com/2020/03/no_author/cdc-admits-in-federal-court-they-have-no-evidence-vaccines-dont-cause-autism/

"Death and life are in the power of the tongue . . . " (Proverbs 18:21)

"For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who suppress the truth in unrighteousness . . . . There will be tribulation and distress for every soul of man who does evil . . . but glory and honor and peace to every man who does good . . . ."
Romans 1:18, 2:9

"Fools despise wisdom and instruction." Proverbs 1:7

"Fools are put in many high positions"
Ecclesiastes 10:6

Compare the testimony shown in the above video with the content of the abstracts from accredited, peer reviewed journals. Note the reference to autism and other neurological diseases:

"Abnormal measles-mumps-rubella antibodies and CNS autoimmunity in children with autism", J Biomed Sci. 2002 Jul-Aug;9(4):359-64. http://www.ncbi.nlm.nih.gov/pubmed/12145534

> "Stemming from this evidence, we suggest that an inappropriate antibody response to MMR, specifically the measles component thereof, might be related to pathogenesis of autism.
> Copyright 2002 National Science Council, ROC and S. Karger AG, Basel "

"When strep plays mind games, Tracking how a common bacterial infection might spark a faulty immune reaction in the brain", Rachel Zamzow *Science News*, August 31, 2019, p. 22-26
https://www.sciencenews.org/article/strep-throat-infections-brain-ocd-anxiety-mental-illness-kids

> "**Autism** Children whose mothers get bacterial or viral infections during pregnancy have a greater chance of developing autism. In some cases of autism, mothers' antibodies may have attacked the developing fetal brain."

"Serological association of measles virus and human herpes virus-6 with brain auto-antibodies in autism", Clin Immunol Immunopathol. 1998 Oct;89(1):105-8.
http://www.ncbi.nlm.nih.gov/pubmed/9756729)

> "This study is the first to report an association between virus serology and brain autoantibody in autism; it supports the hypothesis that a virus-induced autoimmune response may play a causal role in autism."

"Exploring links among autism, the immune system and the brain"
https://health.ucdavis.edu/mindinstitute/newsroom/newsletter/MIND_Matters_Winter_2007.pdf

"Why Does the Vaccine/Autism Controversy Live On?"
https://www.discovermagazine.com/health/why-does-the-vaccine-autism-controversy-live-on

"Measles-Mumps-Rubella Vaccine and Autistic Spectrum Disorder: Report From the New Challenges in Childhood Immunizations Conference Convened in Oak Brook, Illinois, June 12–13, 2000"
http://pediatrics.aappublications.org/content/pediatrics/107/5/e84.full.pdf

"Hypothesis: conjugate vaccines may predispose children to autism spectrum disorders", Med Hypotheses. 2011 Dec;77(6):940-7. doi: 10.1016/j.mehy.2011.08.019. Epub 2011 Oct 10.
http://www.ncbi.nlm.nih.gov/pubmed/21993250

> Abstract
>
> The first conjugate vaccine was approved for use in the US in 1988 to protect infants and young children against the capsular bacteria Haemophilus influenzae type b (Hib). Since its introduction in the US, this vaccine has been approved

in most developed countries, including Denmark and Israel where the vaccine was added to their national vaccine programs in 1993 and 1994, respectively. There have been marked increases in the reported prevalence of autism spectrum disorders (ASDs) among children in the US beginning with birth cohorts in the late 1980s and in Denmark and Israel starting approximately 4-5 years later. Although these increases may partly reflect ascertainment biases, an exogenous trigger could explain a significant portion of the reported increases in ASDs. It is hypothesized here that the introduction of the Hib conjugate vaccine in the US in 1988 and its subsequent introduction in Denmark and Israel could explain a substantial portion of the initial increases in ASDs in those countries. The continuation of the trend toward increased rates of ASDs could be further explained by increased usage of the vaccine, a change in 1990 in the recommended age of vaccination in the US from 15 to 2 months, increased immunogenicity of the vaccine through changes in its carrier protein, and the subsequent introduction of the conjugate vaccine for Streptococcus pneumoniae. Although conjugate vaccines have been highly effective in protecting infants and young children from the significant morbidity and mortality caused by Hib and S. pneumoniae, the potential effects of conjugate vaccines on neural development merit close examination. Conjugate vaccines fundamentally change the manner in which the immune systems of infants and young children function by deviating their immune responses to the targeted carbohydrate antigens from a state of hypo-responsiveness to a robust B2 B cell mediated response. This period of hypo-responsiveness to carbohydrate antigens coincides with the intense myelination process in infants and young children, and conjugate vaccines may have disrupted evolutionary forces that favored early brain development over the need to protect infants and young children from capsular bacteria.

"Hepatitis B vaccination of male neonates and autism diagnosis, NHIS1997-2002", *J Toxicol Environ Health A.* 2010;73(24):1665-77. doi: 10.1080/15287394.2010.519317. http://www.ncbi.nlm.nih.gov/pubmed/21058170)

Abstract

Universal hepatitis B vaccination was recommended for U.S. newborns in 1991; however, safety findings are mixed. The association between hepatitis B vaccination of male neonates and parental report of autism diagnosis was determined. This cross-sectional study used weighted probability samples obtained from National Health Interview Survey 1997-2002 data sets. Vaccination status was determined from the vaccination record. Logistic regression was used to estimate the odds for autism diagnosis associated with neonatal hepatitis B vaccination among boys age 3-17 years, born before 1999, adjusted for race, maternal education, and two-parent household. Boys vaccinated as neonates had threefold greater odds for autism diagnosis compared to boys never vaccinated or vaccinated after the first month of life. Non-Hispanic white boys were 64% less likely to have autism diagnosis relative to nonwhite boys. Findings suggest that U.S. male neonates vaccinated with the hepatitis B vaccine prior to 1999 (from vaccination record) had a threefold higher risk for parental report of autism diagnosis compared to boys not vaccinated as neonates during that same time period. Nonwhite boys bore a greater risk.

"Immunological findings in autism", Int Rev Neurobiol. 2005;71:317-41. http://www.ncbi.nlm.nih.gov/pubmed/16512356)

Abstract
The immunopathogenesis of autism is presented schematically in Fig. 1. Two main immune dysfunctions in autism are immune regulation involving pro-inflammatory cytokines and autoimmunity. Mercury and an infectious agent like the measles virus are currently two main candidate environmental triggers for immune dysfunction in autism. . . . . Studies showing elevated brain specific antibodies in autism support an autoimmune mechanism. . . . . Viruses may initiate the process but the subsequent activation of cytokines is the damaging factor associated with autism. Virus specific antibodies associated with measles virus have been demonstrated in autistic subjects. Environmental exposure to mercury is believed to harm human health possibly through modulation of immune homeostasis. A mercury link with the immune system has been postulated due to the involvement of postnatal exposure to thimerosal, a preservative added in the MMR vaccines. The occupational hazard exposure to mercury causes edema in astrocytes and, at the molecular level, the CD95/Fas apoptotic signaling pathway is disrupted by Hg2+. Inflammatory mediators in autism usually involve activation of astrocytes and microglial cells. Proinflammatory chemokines (MCP-1 and TARC), and an anti-inflammatory and modulatory cytokine, TGF-beta1, are consistently elevated in autistic brains. In measles virus infection, it has been postulated that there is immune suppression by inhibiting T-cell proliferation and maturation and downregulation MHC class II expression. Cytokine alteration of TNF-alpha is increased in autistic populations. Toll-like-receptors are also involved in autistic development. High NO levels are associated with autism. Maternal antibodies may trigger autism as a mechanism of autoimmunity. MMR vaccination may increase risk for autism via an autoimmune mechanism in autism. MMR antibodies are significantly higher in autistic children as

compared to normal children, supporting a role of MMR in autism. Autoantibodies (IgG isotype) to neuron-axon filament protein (NAFP) and glial fibrillary acidic protein (GFAP) are significantly increased in autistic patients (Singh et al., 1997). Increase in Th2 may explain the increased autoimmunity, such as the findings of antibodies to MBP and neuronal axonal filaments in the brain. There is further evidence that there are other participants in the autoimmune phenomenon. (Kozlovskaia et al., 2000). The possibility of its involvement in autism cannot be ruled out. Further investigations at immunological, cellular, molecular, and genetic levels will allow researchers to continue to unravel the immunopathogenic mechanisms' associated with autistic processes in the developing brain. This may open up new avenues for prevention and/or cure of this devastating neurodevelopmental disorder."

"Brain IL-6 elevation causes neuronal circuitry imbalances and mediates autism-like behaviors", Hongen Wei Kathryn K. Chadman , Daniel P. McCloskey , Ashfaq M. Sheikh , Mazhar Malik W. Ted Brown , Xiaohong Li http://vaccinepapers.org/wp-content/uploads/Brain-IL-6-elevation-causes-neuronal-circuitry-imbalances-and-mediates-autism-like-behaviors.pdf

"Immune aberrations consistent with a dysregulated immune response have been reported in autistic children. . . . These findings suggest that IL-6 elevation in the brain could mediate autistic-like behaviors, possibly through the imbalances of neural circuitry and impairments of synaptic plasticity."

"Do aluminum vaccine adjuvants contribute to the rising prevalence of autism?", J Inorg Biochem. 2011 Nov;105(11):1489-99. doi: 10.1016/j.jinorgbio.2011.08.008. Epub 2011 Aug 23. http://www.ncbi.nlm.nih.gov/pubmed/22099159

Abstract

Autism spectrum disorders (ASD) are serious multisystem developmental disorders and an urgent global public health concern. Dysfunctional immunity and impaired brain function are core deficits in ASD. Aluminum (Al), the most commonly used vaccine adjuvant, is a demonstrated neurotoxin and a strong immune stimulator. Hence, adjuvant Al has the potential to induce neuroimmune disorders. When assessing adjuvant toxicity in children, two key points ought to be considered: (i) children should not be viewed as "small adults" as their unique physiology makes them much more vulnerable to toxic insults; and (ii) if exposure to Al from only few vaccines can lead to cognitive impairment and autoimmunity in adults, is it unreasonable to question whether the current pediatric schedules, often containing 18 Al adjuvanted vaccines, are safe for children? By applying Hill's criteria for establishing causality between exposure and outcome we investigated whether exposure to Al from vaccines could be contributing to the rise in ASD prevalence in the Western world. Our results show that: (i) children from countries with the highest ASD prevalence appear to have the highest exposure to Al from vaccines; (ii) the increase in exposure to Al adjuvants significantly correlates with the increase in ASD prevalence in the United States observed over the last two decades (Pearson $r=0.92$, $p<0.0001$); and (iii) a significant correlation exists between the amounts of Al administered to preschool children and the current prevalence of ASD in seven Western countries, particularly at 3-4 months of age (Pearson $r=0.89$-0.94, $p=0.0018$-0.0248). The application of the Hill's criteria to these data indicates that the correlation between Al in vaccines and ASD may be causal. Because children represent a fraction of the population most at risk for complications following exposure to Al, a more rigorous evaluation of Al adjuvant safety seems warranted.

Aluminum Vaccine Adjuvants: Are they Safe?", Curr Med Chem. 2011;18(17):2630-7. http://www.ncbi.nlm.nih.gov/pubmed/21568886

Abstract

Aluminum is an experimentally demonstrated neurotoxin and the most commonly used vaccine adjuvant. Despite almost 90 years of widespread use of aluminum adjuvants, medical science's understanding about their mechanisms of action is still remarkably poor. There is also a concerning scarcity of data on toxicology and pharmacokinetics of these compounds. In spite of this, the notion that aluminum in vaccines is safe appears to be widely accepted. Experimental research, however, clearly shows that aluminum adjuvants have a potential to induce serious immunological disorders in humans. In particular, aluminum in adjuvant form carries a risk for autoimmunity, long-term brain inflammation and associated neurological complications and may thus have profound and widespread adverse health consequences. In our opinion, the possibility that vaccine benefits may have been overrated and the risk of potential adverse effects underestimated, has not been rigorously evaluated in the medical and scientific community. We hope that the present

paper will provide a framework for a much needed and long overdue assessment of this highly contentious medical issue."

"Biopersistence and brain translocation of aluminum adjuvants of vaccines." http://www.ncbi.nlm.nih.gov/pubmed/25699008

"We previously showed that poorly biodegradable aluminum-coated particles injected into muscle are promptly phagocytosed in muscle and the draining lymph nodes, and can disseminate within phagocytic cells throughout the body and slowly accumulate in brain. This strongly suggests that long-term adjuvant biopersistence within phagocytic cells is a prerequisite for slow brain translocation and delayed neurotoxicity. " (https://www.youtube.com/watch?v=jsDKP9rXLkg&feature=youtu.be&t=42m44s (censored; consequential effects of aluminum in vaccines

"Aluminum and Glyphosate Can Synergistically Induce Pineal Gland Pathology: Connection to Gut Dysbiosis and Neurological Disease", *Agricultural Sciences*, 2015, 6, 42-70, Stephanie Seneff, Nancy Swanson, Chen Li; DOI: 10.4236/as.2015.61005 http://file.scirp.org/pdf/AS_2015011220442124.pdf , http://www.scirp.org/Journal/PaperInformation.aspx?PaperID=53106

Abstract

Many neurological diseases, including autism, depression, dementia, anxiety disorder and Parkinson's disease, are associated with abnormal sleep patterns, which are directly linked to pineal gland dysfunction. The pineal gland is highly susceptible to environmental toxicants. Two pervasive substances in modern industrialized nations are aluminum and glyphosate, the active ingredient in the herbicide, Roundup®. In this paper, we show how these two toxicants work synergistically to induce neurological damage. Glyphosate disrupts gut bacteria, leading to an overgrowth of Clostridium difficile. Its toxic product, p-cresol, is linked to autism in both human and mouse models. p-Cresol enhances uptake of aluminum via transferrin. Anemia, a result of both aluminum disruption of heme and impaired heme synthesis by glyphosate, leads to hypoxia, which induces increased pineal gland transferrin synthesis. Premature birth is associated with hypoxic stress and with substantial increased risk to the subsequent development of autism, linking hypoxia to autism. Glyphosate chelates aluminum, allowing ingested aluminum to bypass the gut barrier. This leads to anemia-induced hypoxia, promoting neurotoxicity and damaging the pineal gland. Both glyphosate and aluminum disrupt cytochrome P450 enzymes, which are involved in melatonin metabolism. Furthermore, melatonin is derived from tryptophan, whose synthesis in plants and microbes is blocked by glyphosate. We also demonstrate a plausible role for vitamin D3 dysbiosis in impaired gut function and impaired serotonin synthesis. This paper proposes that impaired sulfate supply to the brain mediates the damage induced by the synergistic action of aluminum and glyphosate on the pineal gland and related midbrain nuclei.

"Autoimmune/inflammatory syndrome induced by adjuvants (Shoenfeld's syndrome): clinical and immunological spectrum." Expert Rev Clin Immunol. 2013 Apr;9(4):361-73. doi: 10.1586/eci.13.2. http://www.ncbi.nlm.nih.gov/pubmed/23557271

Abstract

An adjuvant is a substance that enhances the antigen-specific immune response, induces the release of inflammatory cytokines, and interacts with Toll-like receptors and the NALP3 inflammasome. The immunological consequence of these actions is to stimulate the innate and adaptive immune response. The activation of the immune system by adjuvants, a desirable effect, could trigger manifestations of autoimmunity or autoimmune disease. Recently, a new syndrome was introduced, autoimmune/inflammatory syndrome induced by adjuvants (ASIA), that includes postvaccination phenomena, macrophagic myofasciitis, Gulf War syndrome and siliconosis. This syndrome is characterized by nonspecific and specific manifestations of autoimmune disease. The main substances associated with ASIA are squalene (Gulf War syndrome), aluminum hydroxide (postvaccination phenomena, macrophagic myofasciitis) and silicone with siliconosis. Mineral oil, guaiacol and iodine gadital are also associated with ASIA."

"Aluminum Adjuvant Linked to Gulf War Illness Induces Motor Neuron Death in Mice", Michael S. Petrik, Margaret C. Wong, Rena C. Tabata, Robert F. Garry, and Christopher A. Shaw https://link.springer.com/article/10.1385/NMM:9:1:83 (http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.568.9309&rep=rep1&type=pdf)

". . . Among the vaccine's potentially toxic components are the adjuvants aluminum hydroxide and squalene. . . . Aluminum-treated groups also showed significant motor neuron loss (35%) and increased numbers of astrocytes (350%) in the lumbar spinal cord. The findings suggest a possible role for the aluminum adjuvant in some neurological features associated with GWI and possibly an additional role for the combination of adjuvants."

"The Foundation for Al Adjuvant Safety Is False" http://vaccinepapers.org/the-foundation-for-al-adjuvant-safety-is-false/

"It is not reasonable or scientific to use studies of ingested, water-soluble aluminum salts (like AlCl3 or Al-lactate) to establish a safe dose of injected aluminum adjuvant (comprising aluminum hydroxide/phosphate nanoparticles). The chemical forms and route of administration are different. It is well-established today that nanoparticles can have higher toxicity (and different mechanisms of toxicity) compared to soluble forms of the same material. . . .

"Long-term Persistence of Vaccine-Derived Aluminum Hydroxide is Associated with Chronic Cognitive Dysfunction.", *J. Inorganic Biochemistry* Volume 103, Issue 11, November 2009, Pages 1571–1578 http://www.sciencedirect.com/science/article/pii/S0162013409001895

"The Effect of Aluminum in Vaccines on Humans . . ." Dr. Chris Shaw http://youtu.be/HK-93SHnTFk (censored)

"Aluminium in brain tissue in autism" Matthew Mold , Dorcas Umar , Andrew King , Christopher Exley, *Journal of Trace Elements in Medicine and Biology* Volume 46, **March 2018**, Pages 76-82 https://worldmercuryproject.org/wp-content/uploads/Mold-2017-Aluminum-in-Brain-Tissue-and-Autism.pdf https://www.sciencedirect.com/science/article/pii/S0946672X17308763?via%3Dihub

ABSTRACT

Autism spectrum disorder is a neurodevelopmental disorder of unknown aetiology. It is suggested to involve both genetic susceptibility and environmental factors including in the latter environmental toxins. Human exposure to the environmental toxin aluminium has been linked, if tentatively, to autism spectrum disorder. Herein we have used transversely heated graphite furnace atomic absorption spectrometry to measure, for the first time, the aluminium content of brain tissue from donors with a diagnosis of autism. We have also used an aluminium selective fluor to identify aluminium in brain tissue using fluorescence microscopy. The aluminium content of brain tissue in autism was consistently high. The mean (standard deviation) aluminium content across all 5 individuals for each lobe were 3.82(5.42), 2.30(2.00), 2.79(4.05) and 3.82(5.17) μg/g dry wt. for the occipital, frontal, temporal and parietal lobes respectively. These are some of the highest values for aluminium in human brain tissue yet recorded and one has to question why, for example, the aluminium content of the occipital lobe of a 15 year old boy would be 8.74 (11.59) μg/g dry wt.? Aluminium-selective fluorescence microscopy was used to identify aluminium in brain tissue in 10 donors. While aluminium was imaged associated with neurones it appeared to be present intracellularly in microglia-like cells and other inflammatory non-neuronal cells in the meninges, vasculature, grey and white matter. The pre-eminence of intracellular aluminium associated with nonneuronal cells was a standout observation in autism brain tissue and may offer clues as to both the origin of the brain aluminium as well as a putative role in autism spectrum disorder.

"Behavioral abnormalities in female mice following administration of aluminum adjuvants and the human papillomavirus (HPV) vaccine Gardasil " *Immunologic Research* February 2017, Volume 65, Issue 1, pp 136–149 https://link.springer.com/article/10.1007/s12026-016-8826-6

Abstract

"Vaccine adjuvants and vaccines may induce autoimmune and inflammatory manifestations in susceptible individuals. To date most human vaccine trials utilize aluminum (Al) adjuvants as placebos despite much evidence showing that Al in vaccine-relevant exposures can be toxic to humans and animals...It appears that Gardasil via its Al adjuvant and HPV antigens has the ability to trigger neuroinflammation and autoimmune reactions, further leading to behavioral changes...In light of these findings, this study highlights the necessity of proceeding with caution with respect to further mass-immunization practices with a vaccine of yet unproven long-term clinical benefit in cervical

cancer prevention" (Rotem Inbar, Ronen Weiss, Lucija Tomljenovic, Maria-Teresa Arango, Yael Deri, Christopher A Shaw, Joab Chapman, Miri Blank, Yehuda Shoenfeld. Immunol Res, July 2016.)

"Aluminum in the central nervous system (CNS): toxicity in humans and animals, vaccine adjuvants, and autoimmunity" Chris Shaw, L. Tomljenovic. *Immunologic Research,* (July 2013) 56:304-316 DOI 10.1007/s12026-013-8403-1 https://pubmed.ncbi.nlm.nih.gov/23609067/

"In young children, a highly significant correlation exists between the number of pediatric aluminum-adjuvanted vaccines administered and the rate of autism spectrum disorders. Many of the features of aluminum-induced neurotoxicity may arise, in part, from autoimmune reactions, as part of the ASIA syndrome [Autoimmune Syndrome Induced by Adjuvants]. Aluminum is added to vaccines to help the vaccine work more effectively, but unlike dietary aluminum which will usually clear rapidly from the body, aluminum used in vaccines and injected is designed to provide a long-lasting cellular exposure. Thus, the problem with vaccine-derived aluminum is really twofold: It drives the immune response even in the absence of a viral or bacterial threat and it can make its way into the central nervous system. It is not really a matter of much debate that aluminum in various forms can be neurotoxic." (Chris Shaw, L. Tomljenovic. Immunologic Research, (2013) 56:304-316 DOI 10.1007/s12026-013-8403-1.)

"Neurodevelopmental disorders following thimerosal-containing childhood immunizations: a follow-up analysis." Int J Toxicol. 2004 Nov-Dec;23(6):369-76.
http://www.ncbi.nlm.nih.gov/pubmed/15764492

"It was determined that there were significantly increased odds ratios (ORs) for autism (OR = 1.8, p < .05), mental retardation (OR = 2.6, p < .002), speech disorder (OR = 2.1, p < .02), personality disorders (OR = 2.6, p < .01), and thinking abnormality (OR = 8.2, p < .01) adverse events reported to the VAERS [Vaccine Adverse Event Reporting System] following thimerosal-containing DTaP vaccines in comparison to thimerosal-free DTaP vaccines. Potential confounders and reporting biases were found to be minimal in this assessment of the VAERS. It was observed, even though the media has reported a potential association between autism and thimerosal exposure, that the other NDs [neurodevelopmental disorders] analyzed in this assessment of the VAERS had significantly higher ORs than autism following thimerosal-containing DTaP vaccines in comparison to thimerosal-free DTaP vaccines. The present study provides additional epidemiological evidence supporting previous epidemiological, clinical and experimental evidence that administration of thimerosal-containing vaccines in the United States resulted in a significant number of children developing NDs."

"Administration of thimerosal to infant rats increases overflow of glutamate and aspartate in the prefrontal cortex: protective role of dehydroepiandrosterone sulfate."
http://www.ncbi.nlm.nih.gov/pubmed/22015977

". . .our data imply that neonatal exposure to thimerosal-containing vaccines might induce excitotoxic brain injuries, leading to neurodevelopmental disorders. DHEAS may partially protect against mercurials-induced neurotoxicity."

"A positive association found between thimerosal prevalence and childhood vaccination uptake across the U.S. population." *J Toxicol Environ Health A*. 2011;74(14):903-16. doi: 10.1080/15287394.2011.573736. http://www.ncbi.nlm.nih.gov/pubmed/21623535

Abstract
The reason for the rapid rise of autism in the United States that began in the 1990s is a mystery. Although individuals probably have a genetic predisposition to develop autism, researchers suspect that one or more environmental triggers are also needed. One of those triggers might be the battery of vaccinations that young children receive. Using regression analysis and controlling for family income and ethnicity, the relationship between the proportion of children who received the recommended vaccines by age 2 years and the prevalence of autism (AUT) or speech or language impairment (SLI) in each U.S. state from 2001 and 2007 was determined. A positive and statistically significant relationship was found: The higher the proportion of children receiving recommended vaccinations, the higher was the prevalence of AUT or SLI. A 1% increase in vaccination was associated with an additional 680 children having AUT or SLI. Neither parental behavior nor access to care affected the results, since vaccination proportions were not significantly related (statistically) to any other disability or to the number of pediatricians in a U.S. state. The results

suggest that although mercury has been removed from many vaccines, other culprits may link vaccines to autism. Further study into the relationship between vaccines and autism is warranted."

"B-Lymphocytes from a Population of Children with Autism Spectrum Disorder and Their Unaffected Siblings Exhibit Hypersensitivity to Thimerosal" *Journal of Toxicology* Volume 2013 (2013), Article ID 801517, 11 pages http://dx.doi.org/10.1155/2013/801517 , http://www.hindawi.com/journals/jt/2013/801517/ Copyright © 2013 Martyn A. Sharpe et al.

Abstract

The role of thimerosal containing vaccines in the development of autism spectrum disorder (ASD) has been an area of intense debate, as has the presence of mercury dental amalgams and fish ingestion by pregnant mothers. We studied the effects of thimerosal on cell proliferation and mitochondrial function from B-lymphocytes taken from individuals with autism, their nonautistic twins, and their nontwin siblings. Eleven families were examined and compared to matched controls. B-cells were grown with increasing levels of thimerosal, and various assays (LDH, XTT, DCFH, etc.) were performed to examine the effects on cellular proliferation and mitochondrial function. A subpopulation of eight individuals (4 ASD, 2 twins, and 2 siblings) from four of the families showed thimerosal hypersensitivity, whereas none of the control individuals displayed this response. The thimerosal concentration required to inhibit cell proliferation in these individuals was only 40% of controls. Cells hypersensitive to thimerosal also had higher levels of oxidative stress markers, protein carbonyls, and oxidant generation. This suggests certain individuals with a mild mitochondrial defect may be highly susceptible to mitochondrial specific toxins like the vaccine preservative thimerosal.

"Blood Levels of Mercury Are Related to Diagnosis of Autism: A Reanalysis of an Important Data Set", M. Catherine DeSoto, PhD, Robert T. Hitlan, PhD
http://jcn.sagepub.com/content/22/11/1308.abstract

Abstract

The question of what is leading to the apparent increase in autism is of great importance. Like the link between aspirin and heart attack, even a small effect can have major health implications. If there is any link between autism and mercury, it is absolutely crucial that the first reports of the question are not falsely stating that no link occurs. We have reanalyzed the data set originally reported by Ip et al. in 2004 and have found that the original p value was in error and that a significant relation does exist between the blood levels of mercury and diagnosis of an autism spectrum disorder. Moreover, the hair sample analysis results offer some support for the idea that persons with autism may be less efficient and more variable at eliminating mercury from the blood.

"Thimerosal neurotoxicity is associated with glutathione depletion: protection with glutathione precursors." *Neurotoxicology*. 2005 Jan; 26(1):1-8 http://www.ncbi.nlm.nih.gov/pubmed/15527868

Abstract

Thimerosol is an antiseptic containing 49.5% ethyl mercury that has been used for years as a preservative in many infant vaccines and in flu vaccines. Environmental methyl mercury has been shown to be highly neurotoxic, especially to the developing brain. Because mercury has a high affinity for thiol (sulfhydryl (-SH)) groups, the thiol-containing antioxidant, glutathione (GSH), provides the major intracellular defense against mercury-induced neurotoxicity. Cultured neuroblastoma cells were found to have lower levels of GSH and increased sensitivity to thimerosol toxicity compared to glioblastoma cells that have higher basal levels of intracellular GSH. Thimerosal-induced cytotoxicity was associated with depletion of intracellular GSH in both cell lines. Pretreatment with 100 microM glutathione ethyl ester or N-acetylcysteine (NAC), but not methionine, resulted in a significant increase in intracellular GSH in both cell types. Further, pretreatment of the cells with glutathione ethyl ester or NAC prevented cytotoxicity with exposure to 15 microM Thimerosal. Although Thimerosal has been recently removed from most children's vaccines, it is still present in flu vaccines given to pregnant women, the elderly, and to children in developing countries. The potential protective effect of GSH or NAC against mercury toxicity warrants further research as possible adjunct therapy to individuals still receiving Thimerosal-containing vaccinations.

"Environmental mercury release, special education rates, and autism disorder: an ecological study of Texas", *Health Place*. 2006 Jun;12(2):203-9 http://www.ncbi.nlm.nih.gov/pubmed/16338635

Abstract

The association between environmentally released mercury, special education and autism rates in Texas was investigated using data from the Texas Education Department and the United States Environmental Protection Agency. A Poisson regression analysis adjusted for school district population size, economic and demographic factors was used. There was a significant increase in the rates of special education students and autism rates associated with increases in environmentally released mercury. On average, for each 1,000 lb of environmentally released mercury, there was a 43% increase in the rate of special education services and a 61% increase in the rate of autism. The association between environmentally released mercury and special education rates were fully mediated by increased autism rates. This ecological study suggests the need for further research regarding the association between environmentally released mercury and developmental disorders such as autism. These results have implications for policy planning and cost analysis.

"A case series of children with apparent mercury toxic encephalopathies manifesting with clinical symptoms of regressive autistic disorders", *J Toxicol Environ Health A*. 2007 May 15;70(10):837-51. http://www.ncbi.nlm.nih.gov/pubmed/17454560

Abstract

Impairments in social relatedness and communication, repetitive behaviors, and stereotypic abnormal movement patterns characterize autism spectrum disorders (ASDs). It is clear that while genetic factors are important to the pathogenesis of ASDs, mercury exposure can induce immune, sensory, neurological, motor, and behavioral dysfunctions similar to traits defining or associated with ASDs. The Institutional Review Board of the Institute for Chronic Illnesses (Office for Human Research Protections, U.S. Department of Health and Human Services, IRB number IRB00005375) approved the present study. A case series of nine patients who presented to the Genetic Centers of America for a genetic/developmental evaluation are discussed. Eight of nine patients (one patient was found to have an ASD due to Rett's syndrome) (a) had regressive ASDs; (b) had elevated levels of androgens; (c) excreted significant amounts of mercury post chelation challenge; (d) had biochemical evidence of decreased function in their glutathione pathways; (e) had no known significant mercury exposure except from Thimerosal-containing vaccines/Rho(D)-immune globulin preparations; and (f) had alternate causes for their regressive ASDs ruled out. There was a significant dose-response relationship between the severity of the regressive ASDs observed and the total mercury dose children received from Thimerosal-containing vaccines/Rho (D)-immune globulin preparations. Based upon differential diagnoses, 8 of 9 patients examined were exposed to significant mercury from Thimerosal-containing biologic/vaccine preparations during their fetal/infant developmental periods, and subsequently, between 12 and 24 mo of age, these previously normally developing children suffered mercury toxic encephalopathies that manifested with clinical symptoms consistent with regressive ASDs. Evidence for mercury intoxication should be considered in the differential diagnosis as contributing to some regressive ASDs.

"Thimerosal exposure in infants and neurodevelopmental disorders: an assessment of computerized medical records in the Vaccine Safety Datalink", J Neurol Sci. 2008 Aug 15;271(1-2):110-8. doi: 10.1016/j.jns.2008.04.002. Epub 2008 May 15. http://www.ncbi.nlm.nih.gov/pubmed/18482737

Abstract

The study evaluated possible associations between neurodevelopmental disorders (NDs) and exposure to mercury (Hg) from Thimerosal-containing vaccines (TCVs) by examining the automated Vaccine Safety Datalink (VSD). A total of 278,624 subjects were identified in birth cohorts from 1990-1996 that had received their first oral polio vaccination by 3 months of age in the VSD. The birth cohort prevalence rate of medically diagnosed International Classification of Disease, 9th revision (ICD-9) specific NDs and control outcomes were calculated. Exposures to Hg from TCVs were calculated by birth cohort for specific exposure windows from birth-7 months and birth-13 months of age. Poisson regression analysis was used to model the association between the prevalence of outcomes and Hg doses from TCVs. Consistent significantly increased rate ratios were observed for autism, autism spectrum disorders, tics, attention deficit disorder, and emotional disturbances with Hg exposure from TCVs. By contrast, none of the control outcomes had significantly increased rate ratios with Hg exposure from TCVs. Routine childhood vaccination should be

continued to help reduce the morbidity and mortality associated with infectious diseases, but efforts should be undertaken to remove Hg from vaccines. Additional studies should be conducted to further evaluate the relationship between Hg exposure and NDs.

"Barrier Mechanisms in the Developing Brain " Norman R. Saunders, Shane A. Liddelow, and Katarzyna M. Dziegielewska https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3314990/ *Frontiers of Pharmacol.* 2012; 3: 46. Published online 2012 Mar 29. doi: 10.3389/fphar.2012.00046 PMCID: PMC3314990 PMID: 22479246

Abstract

"These interfaces are referred to as "the" blood–brain barrier. It is widely believed that in embryos and newborns, this barrier is immature or "leaky," rendering the developing brain more vulnerable to drugs or toxins entering the fetal circulation from the mother. . . .Together these properties may render developing brains more vulnerable to drugs, toxins, and pathological conditions, contributing to cerebral damage and later neurological disorders. In addition, after birth loss of protection by efflux transporters in placenta may also render the neonatal brain more vulnerable than in the fetus."

"Aluminum in Childhood Vaccines Is Unsafe" Neil Z. Miller, Journal of American Physicians and Surgeons, Volume 21 Number 4 Winter 2016 109 www.jpands.org/vol21no4/miller.pdf

"Infants and young children throughout the world receive high quantities of aluminum from multiple inoculations. Incremental changes to the vaccination schedule during the past several years significantly increased the quantity of aluminum in childhood shots. Numerous studies provide compelling evidence that injected aluminum can be detrimental to health. Aluminum is capable of remaining in cells long after vaccination and may cause neurologic and autoimmune disorders. During early development, the child's brain is more susceptible to toxins and the kidneys are less able to eliminate them. Thus, children have a greater risk than adults of adverse reactions to aluminum in vaccines. Millions of children every year are injected with vaccines containing mercury and aluminum despite well-established experimental evidence of the potential for additive or synergistic toxicity when an organism is exposed to two or more toxic metals."

"to determine the safety of injected aluminum, scientists must conduct experiments with injected—not ingested—aluminum." (p. 114)

"Induction of metallothionein in mouse cerebellum and cerebrum with low-dose thimerosal injection" Cell Biol Toxicol. 2010 Apr;26(2):143-52. doi: 10.1007/s10565-009-9124-z. Epub 2009 Apr 9. http://www.ncbi.nlm.nih.gov/pubmed/19357975

Abstract

Thimerosal, an ethyl mercury compound, is used worldwide as a vaccine preservative. We previously observed that the mercury concentration in mouse brains did not increase with the clinical dose of thimerosal injection, but the concentration increased in the brain after the injection of thimerosal with lipopolysaccharide, even if a low dose of thimerosal was administered. Thimerosal may penetrate the brain, but is undetectable when a clinical dose of thimerosal is injected; therefore, the induction of metallothionein (MT) messenger RNA (mRNA) and protein was observed in the cerebellum and cerebrum of mice after thimerosal injection, as MT is an inducible protein. MT-1 mRNA was expressed at 6 and 9 h in both the cerebrum and cerebellum, but MT-1 mRNA expression in the cerebellum was three times higher than that in the cerebrum after the injection of 12 microg/kg thimerosal. MT-2 mRNA was not expressed until 24 h in both organs. MT-3 mRNA was expressed in the cerebellum from 6 to 15 h after the injection, but not in the cerebrum until 24 h. MT-1 and MT-3 mRNAs were expressed in the cerebellum in a dose-dependent manner. Furthermore, MT-1 protein was detected from 6 to 72 h in the cerebellum after 12 microg/kg of thimerosal was injected and peaked at 10 h. MT-2 was detected in the cerebellum only at 10 h. In the cerebrum, little MT-1 protein was detected at 10 and 24 h, and there were no peaks of MT-2 protein in the cerebrum. In conclusion, MT-1 and MT-3 mRNAs but not MT-2 mRNA are easily expressed in the cerebellum rather than in the cerebrum by the injection of low-dose thimerosal. It is thought that the cerebellum is a sensitive organ against

thimerosal. As a result of the present findings, in combination with the brain pathology observed in patients diagnosed with autism, the present study helps to support the possible biological plausibility for how low-dose exposure to mercury from thimerosal-containing vaccines may be associated with autism.

"Vaccines and Autism" Bernard Rimland, PhD, Woody McGinnis, MD Autism Research Institute, San Diego, *CA laboratory medicine* September 2002 number 9 volume 33 http://labmed.ascpjournals.org/content/33/9/708.full.pdf ; https://academic.oup.com/labmed/article/33/9/708/2504263 ; https://en.wikipedia.org/wiki/Bernard_Rimland ;

Conclusion

Depressed immunity, autoimmunity, and inflammatory activation are common features in autism. Impaired resistance to infection may predispose to chronic measles infection of the autistic gut by MMR vaccine. Thimerosal-containing vaccine during infancy may depress immunity and lower the threshold for chronic vaccinial measles infection. Thimerosal and MMR may induce autoimmunity to elements of the CNS individually or additively and thus contribute to the pathophysiology of autism. . . .Published science and clinical experience are converging rapidly to form a more accurate image of autism. We are learning that autism implies a physically ill child with associated immune, gut, and nutritional problems. Besides helping target biological interventions for autism, understanding the underlying physical problems enhances our grasp of the possible role of vaccines.

"Self-Organized Criticality Theory of Autoimmunity" , Ken Tsumiyama, Yumi Miyazaki, Shunichi Shiozawa, 2009DOI: 10.1371/journal.pone.0008382 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0008382 (*The Journal of Immunology*, 2010, 184, 93.39 http://www.jimmunol.org/cgi/content/meeting_abstract/184/1_MeetingAbstracts/93.39) https://pubmed.ncbi.nlm.nih.gov/20046868/

"Repeated immunization with antigen causes systemic autoimmunity in mice otherwise not prone to spontaneous autoimmune diseases. . . . Systemic autoimmunity appears to be the inevitable consequence of over-stimulating the host's immune 'system' by repeated immunization with antigen, to the levels that surpass system's self-organized criticality."

http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM101580.pdf (page 11) (error 404), https://www.fda.gov/vaccines-blood-biologics/vaccines/approved-vaccine-products :

"Adverse events reported during post-approval use of Tripedia vaccine include idiopathic thrombocytopenic purpura, SIDS, anaphylactic reaction, cellulitis, autism, convulsion/grand mal convulsion, encephalopathy, hypotonia, neuropathy, somnolence and apnea. Events were included in this list because of the seriousness or frequency of reporting."

"Estimated Prevalence of Autism and Other Developmental Disabilities Following Questionnaire Changes in the 2014 National Health Interview Survey", Benjamin Zablotsky *et al.* (2015) http://www.cdc.gov/nchs/data/nhsr/nhsr087.pdf

"The estimated prevalence of ASD [Autism Spectrum Disorder] based on 2014 data was 2.24%, a significant increase from the estimated annualized prevalence of 1.25% based on2011–2013 data. In contrast, the prevalence of other DD [Developmental Disorder] declined significantly from 4.84% based on 2011–2013 data to 3.57% based on 2014 data."

"The Govt's Pro-Vaccine Medical Expert: Vaccines Can Cause Autism in "Exceptional" Cases, After All", https://sharylattkisson.com/2019/01/06/the-govts-pro-vaccine-medical-expert-vaccines-can-cause-autism-in-exceptional-cases-after-all/

A special federal vaccine court has paid out billions for injuries from brain damage to death. But not for the form of brain injury we call autism. Now—we have remarkable new information: a respected pro-vaccine medical expert used by the federal government to debunk the vaccine-autism link, says vaccines can cause autism after all. He claims he told that to government officials long ago, but they kept it secret.

"Thimerosal Exposure and the Role of Sulfation Chemistry and Thiol Availability in Autism", *Int. J. Environ. Res. Public Health* 2013, *10*(8), 3771-3800; doi:10.3390/ijerph10083771, Janet K. Kern , Boyd E. Haley, David A. Geier, Lisa K. Sykes, Paul G. King and Mark R. Geier http://www.mdpi.com/1660-4601/10/8/3771

Abstract

Autism spectrum disorder (ASD) is a neurological disorder in which a significant number of the children experience a developmental regression characterized by a loss of previously acquired skills and abilities. Typically reported are losses of verbal, nonverbal, and social abilities. Several recent studies suggest that children diagnosed with an ASD have abnormal sulfation chemistry, limited thiol availability, and decreased glutathione (GSH) reserve capacity, resulting in a compromised oxidation/reduction (redox) and detoxification capacity. Research indicates that the availability of thiols, particularly GSH, can influence the effects of thimerosal (TM) and other mercury (Hg) compounds. TM is an organomercurial compound (49.55% Hg by weight) that has been, and continues to be, used as a preservative in many childhood vaccines, particularly in developing countries. Thiol-modulating mechanisms affecting the cytotoxicity of TM have been identified. Importantly, the emergence of ASD symptoms post-6 months of age temporally follows the administration of many childhood vaccines. The purpose of the present critical review is provide mechanistic insight regarding how limited thiol availability, abnormal sulfation chemistry, and decreased GSH reserve capacity in children with an ASD could make them more susceptible to the toxic effects of TM routinely administered as part of mandated childhood immunization schedules.

"A two-phase study evaluating the relationship between Thimerosal-containing vaccine administration and the risk for an autism spectrum disorder diagnosis in the United States", *Transl Neurodegener*. 2013 Dec 19;2(1):25. doi: 10.1186/2047-9158-2-25, Geier DA, Hooker BS, Kern JK, King PG, Sykes LK, Geier MR, https://www.ncbi.nlm.nih.gov/pubmed/24354891

Abstract

BACKGROUND:

Autism spectrum disorder (ASD) is defined by standardized criteria of qualitative impairments in social interaction, qualitative impairments in communication, and restricted and stereotyped patterns of behavior, interests, and activities. A significant number of children diagnosed with ASD suffer a loss of previously-acquired skills, which is suggestive of neurodegeneration or a type of progressive encephalopathy with an etiological pathogenic basis occurring after birth. To date, the etiology of ASD remains under debate, however, many studies suggest toxicity, especially from mercury (Hg), in individuals diagnosed with an ASD. The present study evaluated concerns about the toxic effects of organic-Hg exposure from Thimerosal (49.55% Hg by weight) in childhood vaccines by conducting a two-phased (hypothesis generating/hypothesis testing) study with documented exposure to varying levels of Thimerosal from vaccinations.

METHODS:

A hypothesis generating cohort study was undertaken to evaluate the relationship between exposure to organic-Hg from a Thimerosal-containing Diphtheria-Tetanus-acellular-Pertussis (DTaP) vaccine in comparison to a Thimerosal-free DTaP vaccine administered, from 1998 through 2000, for the risk of ASD as reported in the Vaccine Adverse Event Reporting System (VAERS) database (phase I). A hypothesis testing case-control study was undertaken to evaluate the relationship between organic-Hg exposure from Thimerosal-containing hepatitis B vaccines administered at specific intervals in the first six months of life among cases diagnosed with an ASD and controls born between 1991 through 1999 in the Vaccine Safety Datalink (VSD) database (phase II).

RESULTS:

In phase I, it was observed that there was a significantly increased risk ratio for the incidence of ASD reported following the Thimerosal-containing DTaP vaccine in comparison to the Thimerosal-free DTaP vaccine. In phase II, it was observed that cases diagnosed with an ASD were significantly more likely than controls to receive increased organic-Hg from Thimerosal-containing hepatitis B vaccine administered within the first, second, and sixth month of life.

CONCLUSIONS:

Routine childhood vaccination is an important public health tool to reduce the morbidity and mortality associated with infectious diseases, but the present study provides new epidemiological evidence supporting an association between increasing organic-Hg exposure from Thimerosal-containing childhood vaccines and the subsequent risk of an ASD diagnosis.

"Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder", Khaled, E.M., Meguid, N.A., Bjørklund, G. *et al. Metabolic Brain Disease* (2016). doi:10.1007/s11011-016-9870-6 13 July 2016

.

Abstract

Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder that affects social, communication, and behavioral development. Recent evidence supported but also questioned the hypothetical role of compounds containing mercury (Hg) as contributors to the development of ASD. Results showed that children with ASD had significantly higher levels of Hg, Pb, and the porphyrins pentacarboxyporphyrin, coproporphyrin, precoproporphyrin, uroporphyrins, and hexacarboxyporphyrin compared to healthy controls and healthy siblings of the ASD children. . . . Mothers of ASD children showed a higher percentage of dental amalgam restorations compared to the mothers of healthy controls suggesting that high Hg levels in children with ASD may relate to the increased exposure to Hg from maternal dental amalgam during pregnancy and lactation. The results showed that the ASD children in the present study had increased blood Hg and Pb levels compared with healthy control children indicating that disordered porphyrin metabolism might interfere with the pathology associated with the autistic neurologic phenotype.

"Temporal Association of Certain Neuropsychiatric Disorders Following Vaccination of Children and Adolescents: A Pilot Case–Control Study", *Front. Psychiatry*, 19 January 2017 , Douglas L. Leslie1, Robert A. Kobre, Brian J. Richmand, Selin Aktan Guloksuz, and James F. Leckman https://doi.org/10.3389/fpsyt.2017.00003 ; http://journal.frontiersin.org/article/10.3389/fpsyt.2017.00003/full

"Fever in pregnancy tied to higher risk of autism", Catharine Paddock PhD (June 2017) http://www.medicalnewstoday.com/articles/317896.php

In the journal *Molecular Psychiatry*, the researchers say that their findings support the idea that infection in pregnancy - and the way in which the immune system responds to it - may play a role in the development of some cases of autism .

"Did Chinese scientists find autism's missing puzzle piece?" *Healthcare in America*, J.B. Handley, February 22, 2017 https://leifgrunseth.com/did-chinese-scientists-find-autisms-missing-puzzle-piece/

"Scientists appear to be far closer to explaining the mechanisms of action within the body that cause autism. Most of the research that has created this understanding has been published in the last 36 months, and largely from international scientists in Canada, France, Israel, and China. Four clear, replicable, and related discoveries explaining how autism is triggered are forming an undeniably clear picture of autism's causation, and possibly ways to alleviate the symptoms, too."

"Aluminium in brain tissue in familial Alzheimer's disease" Ambreen Mirza, Andrew King, Claire Troakes Christopher Exley Journal of Trace Elements in Medicine and Biology, Volume 40, March 2017, Pages 30-36 https://doi.org/10.1016/j.jtemb.2016.12.001

Abstract

The genetic predispositions which describe a diagnosis of familial Alzheimer's disease can be considered as cornerstones of the amyloid cascade hypothesis. Essentially they place the expression and metabolism of the amyloid precursor protein as the main tenet of disease aetiology. However, we do not know the cause of Alzheimer's disease and environmental factors may yet be shown to contribute towards its onset and progression. One such environmental factor is human exposure to aluminium and aluminium has been shown to be present in brain tissue in sporadic Alzheimer's disease. We have made the first ever measurements of aluminium in brain tissue from 12 donors diagnosed with familial Alzheimer's disease. The concentrations of aluminium were extremely high, for example, there were values in excess of 10 μg/g tissue dry wt. in 5 of the 12 individuals. Overall, the concentrations were higher than all previous measurements of brain aluminium except cases of known aluminium-induced encephalopathy. We have supported our quantitative analyses using a novel method of aluminium-selective fluorescence microscopy to visualise aluminium in all lobes of every brain investigated. The unique quantitative data and the stunning images of aluminium in familial Alzheimer's disease brain tissue raise the spectre of aluminium's role in this devastating disease.

"Infant mortality rates regressed against number of vaccine doses routinely given: Is there a biochemical or synergistic toxicity?" Neil Z Miller and Gary S Goldman (2011) *Hum Exp Toxicol.* 2011 Sep; 30(9): 1420–1428. doi: 10.1177/0960327111407644
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170075/

Conclusion

The US childhood immunization schedule requires 26 vaccine doses for infants aged less than 1 year, the most in the world, yet 33 nations have better IMRs. Using linear regression, the immunization schedules of these 34 nations were examined and a correlation coefficient of 0.70 ($p < 0.0001$) was found between IMRs and the number of vaccine doses routinely given to infants. When nations were grouped into five different vaccine dose ranges (12–14, 15–17, 18–20, 21–23, and 24–26), 98.3% of the total variance in IMR was explained by the unweighted linear regression model. These findings demonstrate a counter-intuitive relationship: *nations that require more vaccine doses tend to have higher infant mortality rates.*

"Death of infant not linked to vaccines" Annalee Monroe, *The Arizona Republic*, Sunday, May 19, 2019, page 10A

"My 4-month old daughter was taken in for her shots and five days later I was in the ER saying goodbye. That's when I stopped vaccinating. . . . "

"My daughter received her 4 month vaccines and after that she cried and screamed and was not able to be consoled, nothing helped. She went from being the happiest baby in the world to nonstop crying those 5 days before she died. . . ."
"I began researching vaccines, reading other mom's stories that were just like ours, their children cried just like ours did before they went to sleep and never woke up. Reading the vaccine inserts and the adverse reactions listed on the inserts opened my eyes. There is no going back. The risks are not worth it for my family."

[**BF note**: This "Fact Check" article concludes that there was "not sufficient evidence" to conclude that the infant's death was due to vaccines (not even as a probable cause).]

"New Quality-Control Investigations on Vaccines: Micro and Nanocontamination", *International Journal of Vaccines and Vaccination*, Antonietta M Gatti, Stefano Montanari, Volume 4 Issue 1 - 2017, http://medcraveonline.com/IJVV/IJVV-04-00072.pdf

Abstract
"Vaccines are being under investigation for the possible side effects they can cause. In order to supply new information, an electron-microscopy investigation method was applied to the study of vaccines, aimed at verifying the presence of solid contaminants by means of an Environmental Scanning Electron Microscope equipped with an X-ray microprobe. The results of this new investigation show the presence of micro- and nanosized particulate matter composed of inorganic elements in vaccines' samples which is not declared among the components and whose unduly presence is, for the time being, inexplicable. A considerable part of those particulate contaminants have already been verified in other matrices and reported in literature as non biodegradable and non biocompatible. The evidence collected is suggestive of some hypotheses correlated to diseases that are mentioned and briefly discussed."

. . .
"A further purification of the vaccines could improve their quality and could probably decrease the number and seriousness of the adverse incidental effects."

———

"Mechanism of Injury-Provoked Poliomyelitis", Matthias Gromeier, Eckard Wimmer Journal of Virology. 1998 Jun; 72(6): 5056–5060 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC110068/

ABSTRACT

Skeletal muscle injury is known to predispose its sufferers to neurological complications of concurrent poliovirus infections. This phenomenon, labeled “provocation poliomyelitis,” continues to cause numerous cases of childhood paralysis due to the administration of unnecessary injections to children in areas where poliovirus is endemic. Recently, it has been reported that intramuscular injections may also increase the likelihood of vaccine-associated paralytic poliomyelitis in recipients of live attenuated poliovirus vaccines. We have studied this important risk factor for paralytic polio in an animal system for poliomyelitis and have determined the pathogenic mechanism linking intramuscular injections and provocation poliomyelitis. Skeletal muscle injury induces retrograde axonal transport of poliovirus and thereby facilitates viral invasion of the central nervous system and the progression of spinal cord damage. The pathogenic mechanism of provocation poliomyelitis may differ from that of polio acquired in the absence of predisposing factors

———

"Vaccines and the U.S. Mystery of Acute Flaccid Myelitis" BMJ 2015; 350 doi: https://doi.org/10.1136/bmj.h308 (Published 30 January 2015) Cite this as: BMJ 2015;350:h308 https://elementulhuliganic.wordpress.com/2016/11/02/vaccines-and-the-u-s-mystery-of-acute-flaccid-myelitis/ "Do we need a new approach to making vaccine recommendations?"

. . . It is taboo to suggest a role for vaccines, but some old-timers remember "provocation poliomyelitis" or "provocation paralysis." This is paralytic polio following intramuscular injections, typically with vaccines. PP was most convincingly documented by Austin Bradford Hill and J. Knowelden during the 1949 British polio epidemic when the risk of paralytic polio was increased 20-fold among children who had received the DPT injection (BMJ 2:1--July 1, 1950). Similar observations were made by Greenberg and colleagues in New York City; their literature review cited suspected cases as far back as 1921 (Am J Public Health 42:142--Feb.1952). I first became aware of PP 10 years ago while browsing through "Krugman's Infectious Disease of Children" (page 128 of the 2004 edition).

. . . AFM may result from a direct virus attack on the spinal cord, or by an immune attack triggered by a virus, or by something else. If a polio-like virus is circulating in the U.S., the possibility of its provocation by one or more vaccines has to be considered.

THE ART OF MEDICINE VOLUME 384, ISSUE 9940, P300-301, JULY 26, 2014
"Polio provocation: solving a mystery with the help of history" Stephen E Mawdsley, Published: July 26, 2014 DOI: https://doi.org/10.1016/S0140-6736(14)61251-4
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61251-4/fulltext

. . . Concerns about tonsillectomies coincided with indications that paediatric injections could also incite polio paralysis. Evidence of this correlation was first published by German doctors, who noted that children who had received treatment for congenital syphilis later became paralysed in the injected limb. Although further studies from Italy and France corroborated this link, it was not until the end of World War II that injection-induced polio emerged as a public health concern. The application of epidemiological surveillance and statistical methods enabled researchers to trace the steady rise in polio incidence along with the expansion of immunisation programmes for diphtheria, pertussis, and tetanus. A report that emerged from Guy's and Evelina Hospitals, London, in 1950, found that 17 cases of polio paralysis developed in the limb injected with pertussis or tetanus inoculations. Results published by Australian doctor Bertram McCloskey also showed a strong association between injections and polio paralysis. Meanwhile, in the USA, public health researchers in New York and Pennsylvania reached similar conclusions. Clinical evidence, derived from across three continents, had established a theory that required attention.

"Provocation poliomyelitis: vaccine associated paralytic poliomyelitis related to a rectal abscess in an infant", A.R.J. Bosley, Gail Speirs, N.I.Markham, https://doi.org/10.1016/S0163-4453(03)00007-0 https://www.sciencedirect.com/science/article/abs/pii/S0163445303000070

"Polio provocation – the health debate that refused to go away" (03 Sep 2013) https://www.cam.ac.uk/research/features/polio-provocation-the-health-debate-that-refused-to-go-away

> In 1980, public health researchers working in West Africa detected a startling trend among children diagnosed with paralytic polio. Some of the children had become paralyzed in a limb that had recently been the site of an inoculation against a common paediatric illness, such as diphtheria and whooping cough. Studies emerging from India seemed to corroborate a similar association between diagnosis of polio and recent immunisation.
>
> These reports reignited a debate known as the theory of polio provocation that has waxed and waned since the early 1900s – and, at times, shaped immunisation policy. The theory of polio provocation argued that paralytic polio can be provoked by medical interventions, such as injections or tonsillectomy. The controversy that surrounded the debate forced medical professionals into the uncomfortable position of considering whether programmes and practices intended to prevent some illnesses might be also causing another.
>
> . . . (click the link to read the extended discussion)

"ACAM2000 (Smallpox Vaccine) Questions and Answers"
https://www.fda.gov/BiologicsBloodVaccines/Vaccines/QuestionsaboutVaccines/ucm078041.htm

> "Serious health problems, including those that are life-threatening, can also occur in unvaccinated people who are accidentally infected by someone who has recently received the vaccine. In particular, unvaccinated people who are pregnant, or have problems with their heart or immune system, or have skin problems like eczema, dermatitis, psoriasis, and have close contact with a vaccine recipient are at an increased risk for serious problems if they become infected with the vaccine virus, either by being vaccinated, or by being in close contact with a person who was vaccinated. It is very important for the ACAM2000 recipient to properly care for the vaccination site to prevent the virus in the vaccine from spreading and infecting another part of the body and other people.
>
> These types of serious adverse events are similar to those that occurred in the past with other smallpox vaccines."

"Case Reports of 'Syndrome' Appearing After HPV Vaccination", Zosia Chustecka (September 18, 2015) http://www.medscape.com/viewarticle/851186 https://www.rxlist.com/script/main/art.asp?articlekey=190727

"China Vaccine Scandal Prompts Angry Backlash From Parents and Doctors", Charlie Campbell / BEIJING (March 22, 2016) http://time.com/4267266/china-vaccine-scandal/

Claims made about vaccines and herd immunity

"Congressional hearing on measles outbreak highlighted by anger, disruptions" (https://www.nbcnews.com/storyline/measles-outbreak/measles-outbreaks-lawmakers-tackle-vaccine-misinformation-conspiracies-n977261)

> "Because there is no cure, the only way to stop measles is to get the vaccine . . ."

"Measles Outbreak Traced to Fully Vaccinated Patient for First Time", Nsikan AkpanApr. 11, 2014, https://www.sciencemag.org/news/2014/04/measles-outbreak-traced-fully-vaccinated-patient-first-time

"Outbreak of Measles Among Persons With Prior Evidence of Immunity", New York City, 2011 , Jennifer B. Rosen Jennifer S. Rota Carole J. Hickman Sun B. Sowers Sara Mercader Paul A. Rota William J. Bellini Ada J. Huang Margaret K. Doll Jane R. Zucker Christopher M. Zimmerman *Clinical Infectious Diseases*, Volume 58, Issue 9, 1 May 2014, Pages 1205–1210, https://academic.oup.com/cid/article/58/9/1205/2895266 https://doi.org/10.1093/cid/ciu105

"Public Health Officials Know: Recently Vaccinated Individuals Spread Disease" , Leslie Manookian (MARCH 3, 2015) https://www.westonaprice.org/public-health-officials-know-recently-vaccinated-individuals-spread-disease/

"Why Herd Immunity is a Hoax", (March 12, 2019) https://www.wakingtimes.com/2019/03/12/why-herd-immunity-is-a-hoax/ https://articles.mercola.com/sites/articles/archive/2019/03/12/vaccine-herd-immunity.aspx (lists Sources and References)

"Measles and measles vaccines: 14 things to consider" http://www.greenmedinfo.com/blog/measles-and-measles-vaccines-14-things-we-consider, Roman Bystrianyk (October 8th 2014)

> **1. Measles death rate had declined by almost 100% before the use of a measles vaccine**
> During the 1800s, measles were a notable cause of death. Epidemics occurred every few years causing a large influx of children into local hospital wards. In Glasgow, Scotland From 1807-1812 measles accounted for 11% of all deaths. In the years from 1867-1872, 49% of children in a Paris orphanage who developed measles died. [2] Starting in the mid to late-1800s deaths from all infectious diseases, including measles, began to decline. By the 1930s in England and the United States, the chance of dying from measles had dropped to 1-2 percent.
>
> A killed measles virus (KMV) vaccine came into use in the United States in 1963. What you may not have heard is that by 1963, the death rate from measles in the United States had already dropped by approximately 98%.

"Measles outbreak in a vaccinated school population: epidemiology, chains of transmission and the role of vaccine failures", B M Nkowane, S W Bart, W A Orenstein, and M Baltier, *Am J Public Health*. 1987 April; 77(4): 434–438. doi: 10.2105/ajph.77.4.434 PMCID: PMC1646939, PMID: 3826461 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1646939/

> "An outbreak of measles occurred in a high school with a documented vaccination level of 98 per cent. . . .Vaccine failures among apparently adequately vaccinated individuals were sources of infection for at least 48 per cent of the cases in the outbreak. There was no evidence to suggest that waning immunity was a contributing factor among the vaccine failures. . ."

"Measles outbreak in a fully immunized secondary-school population", T L Gustafson, A W Lievens, P A Brunell, R G Moellenberg, C M Buttery, L M Sehulster, *New England Journal of Medicine*, . 1987 Mar 26;316(13):771-4. doi: 10.1056/NEJM198703263161303. PMID: 3821823 DOI: 10.1056/NEJM198703263161303, https://pubmed.ncbi.nlm.nih.gov/3821823/

> "An outbreak of measles occurred among adolescents in Corpus Christi, Texas, in the spring of 1985, even though vaccination requirements for school attendance had been thoroughly enforced. Serum samples from 1806 students at two secondary schools were obtained eight days after the onset of the first case. Only 4.1 percent of these students (74 of 1806) lacked detectable antibody to measles. . . . We conclude that outbreaks of measles can occur in secondary schools, even when more than 99 percent of the students have been vaccinated and more than 95 percent are immune."

"Mumps outbreak in a highly vaccinated student population, The Netherlands, 2004" *Vaccine* 2010 Apr 9;28(17):2932-6. Heinrich J Brockhoff 1, Liesbeth Mollema, Gerard J B Sonder, Cees A Postema, Robert S van Binnendijk, Robert H G Kohl, Hester E de Melker, Susan J M Hahné , https://pubmed.ncbi.nlm.nih.gov/20188683/

> In September 2004 a mumps outbreak occurred at an international hotel school in The Netherlands. . . . Explanations for the relatively high AR among vaccinated participants include primary vaccine failure, waning immunity and incomplete vaccine-induced immunity in the context of high mumps virus exposure in a school party and a crowded boarding school.

"Chickenpox outbreak in a highly vaccinated school population",
Pediatrics 2004 Mar;113(3 Pt 1):455-9. Barna D Tugwell 1, Lore E Lee, Hilary Gillette, Eileen M Lorber, Katrina Hedberg, Paul R Cieslak https://pediatrics.aappublications.org/content/113/3/455

> "We investigated a chickenpox outbreak that started in an Oregon elementary school in October 2001. . . . A chickenpox outbreak occurred in a school in which 97% of students without a prior history of chickenpox were vaccinated. Students vaccinated >5 years before the outbreak were at risk for breakthrough disease. Booster vaccination may deserve additional consideration."

"The latest disease outbreak among vaccinated Harvard students highlights the truth about vaccine failures", J. D. Heyes (April 28, 2016)
https://www.naturalnews.com/053829_Harvard_mumps_outbreak_vaccine_myths.html

> "There is a widening outbreak of mumps, and all the students who have contracted the disease thus far had already been vaccinated for the disease."

https://www.westonaprice.org/public-health-officials-know-recently-vaccinated-individuals-spread-disease/ (read the footnotes)

Many such articles are easily found.

The concept of "herd immunity" originally applied to populations that had recovered from actual "virus-in-the-wild" infections. That this concept would also apply to a vaccinated population is very questionable. Vaccine induced immunity is much narrower than the real thing, and is only temporary (requires "booster shots" every few years; if you were vaccinated against the measles in the 1960s, your "vaccine immunity" is now long gone".)

Reactions to measles vaccinations themselves can even be confused with actual "in the wild" measles outbreaks:

> "During the measles outbreak in California in 2015, a large number of suspected cases occurred in recent vaccines. Of the 194 measles virus sequences obtained in the United States in 2015, 73 were identified as vaccine sequences." ("Rapid Identification of Measles Virus Vaccine Genotype by Real-Time PCR" https://jcm.asm.org/content/55/3/735 DOI: 10.1128/JCM.01879-16 Felicia Roy, Lillian Mendoza, Joanne Hiebert, Rebecca J. McNall, Bettina Bankamp, Sarah Connolly, Amy Lüdde, Nicole Friedrich, Annette Mankertz, Paul A. Rota, Alberto Severini; See also: https://www.wakingtimes.com/2019/03/05/portions-of-measles-outbreaks-are-due-to-vaccine-reactions-and-not-wild-measles-virus

Said differently, about 38 percent of the suspected measles cases in the Disneyland outbreak had nothing to do with "wild measles" but were actually vaccine related.

---

http://www.greenmedinfo.com/anti-therapeutic-action/vaccination-hpv-gardisil (Abstracts for HPV vaccination (Gardisil))

"On the relationship between human papilloma virus vaccine and autoimmune diseases"
Autoimmunity Reviews Volume 13, Issue 7, July 2014, Pages 736–741
http://www.sciencedirect.com/science/article/pii/S1568997214000664

Commentaries, accusations, pushbacks, non-compliance

"Compulsory Vaccination in England" , William Tebb (**1884**)
http://babel.hathitrust.org/cgi/pt?id=hvd.32044048098289;view=1up;seq=9 (page 67)

> The popularity of Vaccination has disappeared. The practice has been unable to face free discussion, and the only support of vaccinal tyranny, in the present day, is the dead weight of State-officialism, and the advocacy of an interested professional trades-unionism. The SCIENCE which occupies itself with providing substitutes for Municipal and Personal Cleanliness is fore-doomed to failure.

Presentations by VaxXed.com and others:

"The Prosecutor Nico" http://www.youtube.com/watch?v=TJs2VzgBOVI (censored)
"Colton in Utah" http://www.youtube.com/watch?v=CHYmb9Hwj4A (censored)
"VAXXED TV Live Stream" http://www.youtube.com/watch?v=KNPb0kbDAHQ (censored)
https://vaxxedthemovie.com/stream/
https://www.periscope.tv/teamvaxxed/1yNGanlpMMgJj

"VaxXed: the ABC News interview that Big Pharma didn't want you to see",
http://www.youtube.com/watch?v=tvcdh7KlgPI

"Robert F Kennedy's Devastating Quotes on Vaccines and the CDC"
https://thefallingdarkness.com/robert-f-kennedys-devastating-quotes-vaccines-cdc/

"Merck Has Some Explaining To Do Over Its MMR Vaccine Claims", Lawrence Solomon (2014)
http://www.huffingtonpost.ca/lawrence-solomon/merck-whistleblowers_b_5881914.html

> According to the whistleblowers' court documents, Merck's misconduct was far-ranging: It "failed to disclose that its mumps vaccine was not as effective as Merck represented, (ii) used improper testing techniques, (iii) manipulated testing methodology, (iv) abandoned undesirable test results, (v) falsified test data, (vi) failed to adequately investigate and report the diminished efficacy of its mumps vaccine, (vii) falsely verified that each manufacturing lot of mumps vaccine would be as effective as identified in the labeling, (viii) falsely certified the accuracy of applications filed with the FDA, (ix) falsely certified compliance with the terms of the CDC purchase contract, (x) engaged in the fraud and concealment describe herein for the purpose of illegally monopolizing the U.S. market for mumps vaccine, (xi) mislabeled, misbranded, and falsely certified its mumps vaccine, and (xii) engaged in the other acts described herein to conceal the diminished efficacy of the vaccine the government was purchasing."

"The Flu Vaccine War: Healthcare Workers Fight Back"
http://healthimpactnews.com/2014/the-flu-vaccine-war-healthcare-workers-fight-back/

"Forcing Flu Shots on Health Care Workers: Who Is Next?" https://www.nvic.org/NVIC-Vaccine-News/September-2010/Forcing-Flu-Shots-on-Health-Care-Workers-Who-Is-N.aspx

"Student Who Refused to Lie About Vaccines and was Kicked out of Nursing School Fights Back with Lawsuit" http://healthimpactnews.com/2015/student-who-refused-to-lie-about-vaccines-and-was-kicked-out-of-nursing-school-fights-back-with-lawsuit/#sthash.pJJWOa7L.dpuf

“Researchers: Medical errors now third leading cause of death in United States” http://www.washingtonpost.com/news/to-your-health/wp/2016/05/03/researchers-medical-errors-now-third-leading-cause-of-death-in-united-states/ (This does not inspire confidence in our healthcare system.)

http://vaccinetruth.org/index.html (This a very interesting site with a wealth of comprehensive information, some of it very technical such as abstracts from peer reviewed journals.)

https://www.westonaprice.org/protect-the-right-to-say-no-to-vaccination-in-arizona/ (a thoughtful article with some good advice)

The Peanut Allergy Epidemic: What's Causing It and How to Stop It (June 2011) by Heather Fraser (peanut oil is used in making vaccines)

"Acellular pertussis vaccination enhances B. parapertussis colonization", synopsis by Alexia Karanikas https://www.huck.psu.edu/research/center-for-infectious-disease-dynamics/article/acellular-pertussis-vaccination-enhances-b-parapertussis-colonization ; (http://www.biomedcentral.com/1741-7015/13/146)

> In contrast, vaccination led to a 40-fold enhancement of B. parapertussis colonization in the lungs of mice. Though the mechanism behind this increased colonization was not specifically elucidated, it is speculated to involve specific immune responses skewed or dampened by the acellular vaccine, including cytokine and antibody production during infection. Despite this vaccine being hugely effective against B. pertussis, which was once the primary childhood killer, these data suggest that the vaccine may be contributing to the observed rise in whooping cough incidence over the last decade by promoting B. parapertussis infection. Highlighting the extreme consideration that should be exercised in future vaccine development, this work supports the use of vaccines that also target B. parapertussis as a potentially more efficient way to battle whooping cough.

"Vaccine Fraud: The Polio Elimination By Vaccine Hoax", http://naturalsociety.com/vaccine-fraud-the-polio-elimination-by-vaccine-hoax/ https://www.youtube.com/watch?v=Twch-T-n8Ns

562 U. S. ____ (2011)
SUPREME COURT OF THE UNITED STATES, RUSSELL BRUESEWITZ, et al.,
PETITIONERS v. WYETH LLC, fka WYETH, INC., fka WYETH LABORATORIES, et al. on writ of certiorari to the united states court of appeals for the third circuit (February 22, 2011)
http://www.supremecourt.gov/opinions/10pdf/09-152.pdf

> "the Act eliminates manufacturer liability for a vaccine’s unavoidable, adverse side effects"

(as above) https://www.law.cornell.edu/supct/html/09-152.ZD.html

> 4 Comment k provides as follows: “Unavoidably unsafe products. There are some products which, in the present state of human knowledge, are quite incapable of being made safe for their intended and ordinary use. These are especially common in the field of drugs. An outstanding example is the vaccine for the Pasteur treatment of rabies, which not uncommonly leads to very serious and damaging consequences when it is injected. Since the disease itself invariably leads to a dreadful death, both the marketing and the use of the vaccine are fully justified, notwithstanding the unavoidable high degree of risk which they involve. Such a product, properly prepared, and accompanied by proper directions and warning, is not defective, nor is it unreasonably dangerous. The same is true of many other drugs, vaccines, and the like, many of which for this very reason cannot legally be sold except to physicians, or under the prescription of a physician. It is also true in particular of many new or experimental drugs as to which, because of lack of time and opportunity for sufficient medical experience, there can be no assurance of safety, or perhaps even of purity of ingredients, but such experience as there is justifies the marketing and use of the drug notwithstanding a medically recognizable risk. The seller of such products, again with the qualification that they are properly prepared and marketed, and proper warning is given, where the situation calls for it, is not to be held to strict liability for unfortunate

consequences attending their use, merely because he has undertaken to supply the public with an apparently useful and desirable product, attended with a known but apparently reasonable risk."

"Swine Flu Vaccine Linked to Narcolepsy in British Kids" http://www.livescience.com/27493-narcolepsy-swine-flu-vaccine.html

http://www.thefreelibrary.com/Narcolepsy+may+be+rooted+in+the+immune+system%3a+assault+on+brain+cells...-a0356580453

"Neurological and autoimmune disorders after vaccination against pandemic influenza A (H1N1) with a monovalent adjuvanted vaccine: population based cohort study in Stockholm, Sweden" http://www.bmj.com/content/343/bmj.d5956

"The flu vaccine may have a strange problem that US scientists can't fix", http://www.businessinsider.com/annual-flu-shots-may-lower-effectiveness-2015-11

"Repeated vaccinations against the flu might make the newest shot less effective than the last . . ."

http://www.cdc.gov/vaccinesafety/Concerns/h1n1_narcolepsy_pandemrix.html ; http://en.wikipedia.org/wiki/Pandemrix ; http://blogs.nature.com/news/2014/07/journal-retracts-paper-linking-vaccine-and-narcolepsy.html

"Drug Company Under Fire After Revealing Dengue Vaccine May Harm Some" https://www.nytimes.com/2017/12/17/health/sanofi-dengue-vaccine-philippines.html

"My people are destroyed for lack of knowledge."
Hosea 4:6

A few offhand rules for population control used by governments:

1. **Keep them fearful.** The government knows what is really going on, AND ITS REALLY BAD! Only the government can protect you from the boogeymen. Don't listen to those other guys. They are well-meaning but misinformed people. They just don't know any better. Or maybe they are drunk, popping LSD, smoking pot, etc.

2. **Keep them ignorant.** Don't give them the information they need to make informed decisions, or even hint that such information exists. Tell them how to influence people by using emotion instead of facts, reason, and logic. Don't address the issues. Point out who is right, who is wrong, who is smart, who is stupid, who is wise, who is a crackpot. After all, it is all about PEOPLE isn't it? Add plenty of snarky wisecracks, insults and name-calling. Call it a "true science forum".

3. **Keep them confused.** Have the experts offer differing and contradictory opinions. What is "incontrovertible truth" today (that any REASONABLE person would accept) is "false" or "outdated" tomorrow.

4. **Keep them distracted.** Give them "bread and circus" like the Romans did. "News" is who won the football game or what movie star is wearing a different colored bra.

"The way of the wicked is like darkness; They do not know over what they stumble."
Proverbs 4:19 (*NAS*)

"The wisdom of this world is foolishness before God"
1 Corinthians 3:19

". . .and men loved the darkness rather than the light; for their deeds were evil. For everyone who does evil hates the light, and does not come to the light, lest his deeds should be exposed. But he who practices the truth comes to the light, that his deeds may be manifested as having been wrought in God."
John 3:19-21

“Blessed are you when men cast insults at you, and persecute you, and say all kinds of evil against you falsely, on account of Me. Rejoice and be glad, for your reward in heaven is great, for so they persecuted the prophets who were before you. You are the salt of the earth . . . You are the light of the world.”
Matthew 5:11-14